THE THEORY OF THE CATEGORIES

FRANZ BRENTANO

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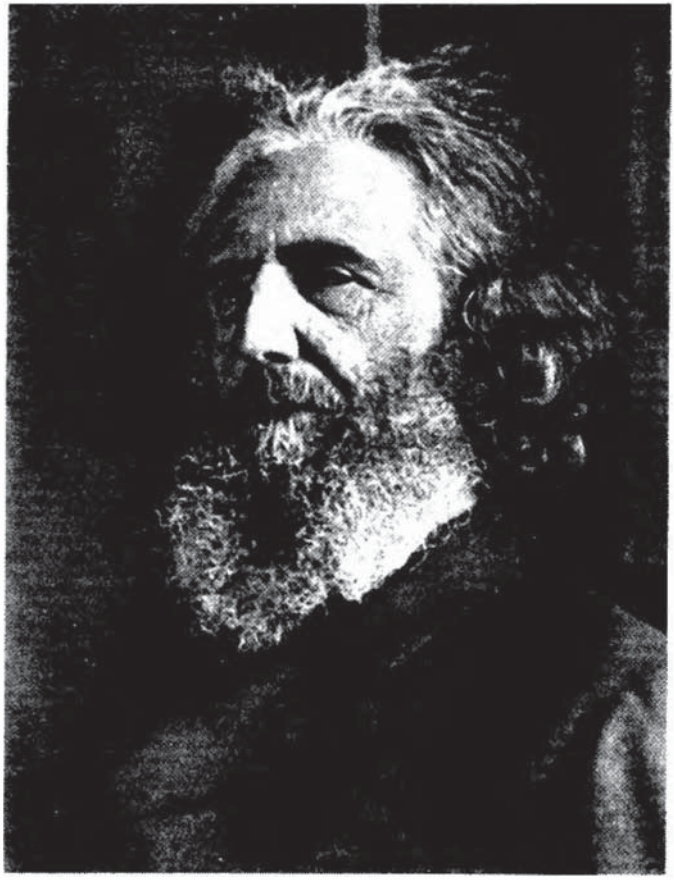
THE THEORY OF CATEGORIES

by

FRANZ BRENTANO



Franz Brentano, after 1905.

TABLE OF CONTENTS

Introduction to the Theory of Categories by Roderick M. Chisholm 1

PART ONE

THE STRICT AND THE EXTENDED SENSES OF BEING

I. THE AMBIGUITY OF "IS" AND THE UNITY OF THE CONCEPT OF BEING 15

A. Being in the strict sense and in the extended sense 15
B. Beings in the strict sense and in the extended sense 19
C. General objects as beings in the extended sense 23
D. Universals and their specifications 24
E. The bizarre distinction between being and existence 29

II. REAL AND FICTIVE PARTS OF BEING 34

A. Universal, genus, species and individual 34
B. Ways of combining objects of thought 41
C. Unity, things and parts of things 44
D. Fictive parts of things 51
E. The part-whole relation with reference to collectives, continua, and accidents 54

III. BEING AND INTENSITY 58

A. Incomplete entelechy and intensity 58
   I. Aristotle's doctrine of incomplete entelechy 58
   II. The traditional conception of intensity and the Aristotelian definition of motion 62
   III. Critique of the traditional doctrine of intensity 62
   IV. The connection between the theory of intensity and the theory of multiple quality 67
B. Intensity of mass, elasticity and impenetrability 70
C. Intensity of effect 73
D. Kant's doctrine of intensity 74

PART TWO

PRELIMINARY STUDIES FOR THE THEORY OF CATEGORIES

I. ARISTOTLE'S THEORY OF CATEGORIES: INTERPRETATION AND CRITIQUE 81

A. The fundamental ideas and the fundamental errors 81
B. The meaning of the Aristotelian theory of categories: substance as principle of individuation 87
C. Toward a reform of the Aristotelian theory of categories 89

II. SUBSTANCE 101

A. Philosophical conceptions of substance 101
B. Derivation of the concept of substance 111
C. Substance and accident 115
D. Substance, self, and self-awareness 116

III. RELATIONS 125

A. On that which is relative to something 125
B. Sameness and difference and how we apprehend them 131
C. Sameness, similarity, and analogy 134
D. On the concept of efficient cause 135
E. The temporal relation between cause and effect 140
F. The temporal relation in causation and in self-preservation 143

PART THREE

THE FINAL THREE DRAFTS OF THE THEORY OF CATEGORIES

I. THE FIRST DRAFT OF THE THEORY OF CATEGORIES 149

A. The ambiguity and unclarity of words and syntactic structures 149
B. The types of predication 153
I. Spurious predications 153
II. Genuine predications and ultimate subjects 154
III. Predications and pluralities 155
C. The passive affections 156
D. Comparison with the Aristotelian theory of categories 158
E. The problem of the criteria for distinguishing categories 160
F. The copula in genuine predications 162
G. Addendum: the compatibility of accidents within the same category 163

II. THE SECOND DRAFT OF THE THEORY OF CATEGORIES 167

A. The unreliability of grammar as a guide to descriptive psychology 167
B. Genuine and spurious predications 169
C. Synopsis and supplement 178
D. Excursus on the so-called abstracta 185

III. THE THIRD DRAFT OF THE THEORY OF CATEGORIES 188

IV. APPENDIX: THE NATURE OF THE PHYSICAL WORLD IN THE LIGHT OF THE THEORY OF CATEGORIES 208

PART ONE

THE STRICT AND THE EXTENDED SENSES OF BEING

I. THE AMBIGUITY OF "IS" AND THE UNITY OF THE CONCEPT OF BEING

A. BEING IN THE STRICT SENSE AND IN THE EXTENDED SENSE
(26 January 1914)

1. There can be no teaching unless the teacher is understood by his students. Since teaching involves the use of language, the teacher will use some words whose meanings he can safely assume to be known to his students; whenever he must use unfamiliar words or symbols, he will explain them. The nominal definitions with which geometers since antiquity have begun their treatises obviously serve this purpose.

2. To such linguistic explanation, the teacher of any science will add assertions whose truth is immediately certain and thus which require no proof. In combination with one another these can serve to demonstrate still other assertions which are not directly evident, and whose truth is grasped indirectly.

3. The directly evident truths are of two kinds. Some are related to facts which the student grasps by evident perception. The others are axioms which reject certain combinations as impossible. These latter are directly grasped as correct once their sense is understood and the impossible combinations are considered. Being negative, the axioms are general propositions, and are evident as such: they are based neither on experience nor on induction. This is why they are called direct cognitions *a priori*.[1]

4. What is true of all sciences is also true of the science of philosophical wisdom. This differs from the other sciences in that it aims at knowledge not just of facts and of that which is impossible *a priori* but also of that which is positively necessary. It considers what is merely factually known with respect to its *that* and, by showing that this is indirectly necessary it presents us with its *why*. The one who has wisdom is able to see in the end that whatever is not actual is *a priori* impossible, and that whatever is actual is *a priori* necessary. This will be so even though his own apprehension of such impossibility or necessity is based merely upon factual knowledge. It has been said in this connection that a truth which it inself is prior and unconditioned is, for us, posterior and conditioned; and, conversely, that a truth which in itself is posterior and conditioned, is for us a truth which is prior and unconditional.[2]

5. A metaphysical theory may begin with the following explication of words:

By *that which is,* when the expression is used in *the strict sense,* we understand a thing; for example, a body, a mind, or a topoid of more or fewer than 3 dimensions. A part of a body or of a topoid may also be called a thing. And so a number of things taken together may also be called a thing. But it would be wrong to suppose that the two parts of a thing taken together constitute an additional third thing. For where we have an addition the things that are added must have no parts in common. Thus we may say, for example, that a triangle has three angles, but not that it has three pairs of angless: angles *A* and *B* form a pair, as do *B* and *C,* and also *C* and *A,* but each of these pairs has a part in common with each of the others.

Similarly, a mind that is considering the law of contradiction may be called a thing whether or not it has this attribute. But it would be a mistake to suppose that we are here dealing with two things. This would be the case only if the mind were not itself a part of the person thinking but were some entirely different thing that was added to him. Since there are many minds, one can of course join to any mind a person thinking the law of contradiction; then we would have two things, but we would also have two minds as well. If there are such things as atoms,[3] then each particular atom is a thing and, according to what we have said, any three atoms taken together can also be called a thing; but the latter may not now be called a fourth thing, for it consists of nothing more than the original three atoms, each of which is one of its parts. Again, one-half of each of these three atoms is a thing, and so each atom may be called two things as well as one thing. And since each half may in turn be said to consist of two halves, one atom may be called four things as well as one thing, and so on *ad infinitum*. But although we can mentally divide an atom into halves by planes cutting across it in every possible direction, it would be wrong to conclude that the atom is composed of more than two halves, or of an infinity of halves and thus of an infinite number of things each of which is half the size of the atom itself. If I may thus call the atom a hundred things as well as one thing, then each one of the hundred things will be one hundred times smaller than the one thing I can call an atom.

(These observations are directed against Aristotle and Leibniz, both of whom held that no individual thing can be composed of several things. Aristotle concluded that the parts of a real physical continuum can have no actual existence. Leibniz maintained on the other hand, that every individual thing can be composed of several things. Aristotle concluded that the parts of a real physical continuum can have no actual existence. Leibniz maintained on the other hand, that every individual point in a body is a thing; the body is an aggregate which results from the addition of all these things but it is not itself an actual thing. But this is unacceptable as is the assumption that dimensionless points can ever make up an extended magnitude, whether or not such a

magnitude may deserve to be called a thing.)

The expression *that which is* is also used in various extended senses:

(a) The resources of language enable us to form an *abstractum* for every *concretum*. For the concretum, *that which is,* there is the abstractum, *being;* for *body*, there is the abstractum *corporeality;* for *mind,* there is *spirituality* or *mentality;* for *lover,* there is *love;* for *which knows,* there is *knowledge;* for *that which is formed*, there is *form*; and so on. What do these abstracta denote? Obviously not the same things as do the corresponding concreta; this would be a pointless duplication of names. Sometimes the relation between the concrete and abstract terms is explained by saying: "That which is formed is formed in virtue of its form. For example, that which is round is round in virtue of its roundness; and whatever is a body is a body in virtue of its corporeality or its corporeal nature." It has also been said that the roundness is *in* that which is round and that the corporeal nature is *in* the body. This seems to suggest that the *concretum* is related to the *abstractum* as part to whole. Indeed, the *abstractum* has been called the formal part of the *concretum;* the *concretum* is then said to be that which is denoted by the concrete term because it contains the *abstractum* as part.

If *abstracta* were in fact thus parts of *concreta* there would be no objection to including *abstracta* among those things which are in the proper sense. But actually they are not parts. A division of the *concretum* into two parts one of which is the form corresponding to the *abstractum* is plainly impossible. This division is purely fictive: it amounts to saying that a thing has as many parts as there are predicates that apply to it. Using abstracta in this way, one says that a thing is round because roundness is included among its parts just as one says that an animal is hairy because hair is included among its parts. But whereas an animal's hair is a real thing which can be separated from the animal both in fact and in thought, the contrary is true of the so-called roundness, which can neither exist by itself nor be thought of by itself. Fictions of this sort are often harmless, and they may even be useful, as when mathematicians treat circle as a regular polygon with an infinite number of sides or assume that parallel lines meet in infinity. If such fictions served no purpose whatever, they would hardly have come into use. But what has been expressed by abstract terms can always be expressed by concrete ones, without recourse to fictions. Leibniz pointed out that by such rephrasing a number of difficulties that baffled the Scholastic philosophers are easily disposed of. So far as linguistic usage is concerned, we can say, not only that there is something round, but also that there is such a thing as roundness; but we must bear in mind that the "is" in the latter statement is used in an extended sense, and that the only thing that can properly be said to be here is the thing which is round.

(b) Instead of saying that a thinker is thinking *of* something, one can also say that there *is* something which is thought about by him. Here, again, we are not

dealing with what may be said to be in the proper sense – indeed, the person in question may himself deny that what he is thinking about is something that there is. Even a contradiction in terms, something that is plainly impossible, can be something that is thought about. We have just said that not roundness but that which is round *is* in the strict sense; similarly, not the contemplated round thing, but the person contemplating it is what is in the strict sense. This fiction, that there is something which exists as a contemplated thing, may also prove harmless, but unless one realizes that it is a fiction, one may be led into the most glaring absurdities. Things which exist as objects of thought do not constitute a subspecies of genuine being, as some philosophers have assumed. Once we have translated statements about such fictive objects into other terms, it becomes clear that the only thing the statement is concerned with is the person who is thinking about the object. What I have said here with general reference to that which is contemplated or thought about also applies, of course, to that which is affirmed,

(e) If one says, something *is* past or something *is* future, one is making an affirmation. But one is not thereby affirming or accepting something as being. One is making an affirmation in the temporal mode of the past or the future instead of the temporal mode of the present.[6] If one were to say "The past Caesar *is*," instead of saying "Caesar is past" he would be using *is* in an extended sense. The case would be analogous to that in which, instead of saying that there can be no such thing as a round square, one says that a round square *is* an impossibility. Once again, a different phrasing would be a suitable way of showing that we are not dealing with a strict interpretation of being.

(f) Many other examples of improper use of the *"is"* could be cited. Consider, for example, the statement that there *is* a time that has neither beginning nor end or the statement that there *is* a three-dimensional space indefinitely in all directions. It is easy to see on the basis of what has been said already that such statements do not refer to anything than can *be* in the strict sense. Time and space seem to belong to the *abstracta*. This means that what *is,* in the strict sense, is not space or time, but rather that *which is spatial* and that *which is temporal.* Instead of speaking of space and time, we should speak of "things that are spatial," "things that are spatially different," "things that are temporal," "things that are simultaneous," and so on. Those philosophers who say that there *is* an infinite space as precondition of everything spatial conceive of this space as a thing. But this doctrine has no basis; indeed it is demonstrably false and absurd.[7] Similarly, what philosophers have called time *would* be a thing if it actually existed. But time, thus considered as a thing, is a philosophical aberration. And this is so even if it is true that there is a thing that had no beginning and will always be, a thing that is continuously undergoing changes and producing changes in everything outside itself, thus making indirectly necessary the uniformity of the temporal process in things. Such an entity would

not correspond to the thing that philosophers have thought of as being time.

(g) In certain cases one must be especially careful not to confuse being in the strict sense with being in the extended sense. Consider, for example, the statement "There is a non-man." At first thought, one might deny that "non-man" denotes a being in the strict sense, and say that we have here only a linguistic expression for the denial of some thing. Actually, a non-man *is* a thing. It is a thing we can correctly deny to be human, just as a thing that is unhealthy is a creature which can be correctly denied to be healthy. A thing which I can correctly deny to be such and so *is* obviously a thing; in denying something of it I acknowledge it to be a thing. The thing that is a non-man has positive determinations in virtue of which it is correct to deny, rather than to affirm, that the thing is a man.

Again, consider the statement "There is a being capable of judgment." Does this refer to something which is in the strict sense? At first thought, one might be inclined to say that it does not, since capability signifies a kind of possibility, and we have said that the possible as such is not a being or a thing. On closer examination, however, we find that this case is like the preceding. The statement "There is a being capable of judgment" refers to a thing concerning which we may rightly deny that the power of judgment is incompatible with its nature. And so the thing that is here affirmed *is* a being in the strict sense. But its nature is characterized only indirectly – by reference to the judgment of one who would apodictically *deny* that the thing is a thing that judges.

B. BEINGS IN THE STRICT SENSE AND IN THE EXTENDED SENSE
(2 February 1914)

1. Consider first that which is in the strict sense. Here we should include every individual thing, every multiplicity [*Mehrheit*] of things, and every part of a thing. Every multiplicity of things is a thing and every part of an individual thing is a thing.[8] If one conceives something in individual terms, then one conceives a *thing*. And if one conceives something in general terms, then one is also conceiving a thing.[9] Among things in the strict sense, then, are every substance, every multiplicity of substances, every part of a substance, and also every accident. Every accident contains its substance as a part, but the accident is not itself a second, wholly different part that is added to the substance. The same is true of a multiple accident, which extends a substance in different ways but does not add anything entirely new to it.[10] And the same applies to multiple accidents of the second or higher order.

In one sense the accident is a thing other than the substance; but in another sense each is predicated of the other. One must guard against misconceiving the

distinction. If the substance is predicated of an accident, then the predication asserts, not that the substance and accident are identical, but that the accident contains the substance. If the accident is predicated of the substance, then the predication asserts that the substance is contained in the accident.[11] The subject is not wholly the same thing as that *of which* it is the subject; yet the predicate is not strictly a second thing existing along side of the subject; it would be a second thing in the strict sense only if it did not contain the first as part.

Consider the view according to which a multiplicity [*Vielheit*] of things cannot be said to *be* in the strict sense and is thus not itself a thing. This view would be applicable to any spatial continuum. One who held it would have two courses. He could say with Aristotle that the destruction of the smallest part of a continuum results in a substantive transformation of the whole in respect to all of the remaining parts. Or he could say with Leibniz that only points can *be* in the proper sense. But no continuum can be built up by adding one individual point to another. And a point exists only in so far as it belongs to what is continuous; points may be joined together just to the extent that they do belong to the same continuum. But no point can *be* anything detached from the continuum; indeed, no point can be thought of apart from a continuum. When I think of the tip of a cone, I am thinking of one of the parts of the cone – one which has no other parts above it; its magnitude is left undetermined so that it can be thought of as smaller than any given part.

The same is true of temporal extension. No point in time can exist separately, detached from any earlier or later point. And instead of saying that there is a temporally unextended point, it might be accurate to say that a temporally extended thing exists with respect to a point [*ein zeitlich Ausgedehntes bestehe einem Punkte nach*].

Perhaps we can say that the concept of being in the proper sense coincided with the concept of that which is now or present.[12] But every thing that is now or present is a temporally extended thing which is now or present with respect to one moment after another.

2. In addition to its strict sense, *being* may be taken in a variety of extended senses. Our task will now be to investigate these more closely, to classify them, and to show how such verbal equivocations could gain currency. They have led to errors. Should we also say that each of them is itself the consequence of an error? If so, the temptation to use them must have been very strong. Possibly they are conscious fictions which offer certain practical advantages. Jurists provide us with such fictions in extending the use of the word "person." The mathematician, similarly, may say that a circle is a polygon with an infinite number of sides, or that a fraction is a number, or he may speak of a quantity which is less than zero. Here, too, one may ask how such improper usage came

about and what justifies it.

(a) One of the extended senses is *being in the sense of the true*, which may be contrasted with *not-being in the sense of the false.* In answer to the question "Is it not true that 2 is less than 3?" we say "Yes it *is*." We may also say "There *is* such a thing as 2 being less than 3." But 2 being less than 3 is not a thing, and the impossibility of 2 being more than 3 is not a thing. What the *is* expresses here is rather the fact that we hold a certain judgment to be true, the judgment that it is impossible that there is a 3 that is 2.

We can readily see how this extended sense of being can be a useful linguistic device. Consider the following statement: "If every case of *a* being *b* is a case of *c* being *d*, and if every case of *c* being *d* is a case of *e* being *f*, than every case of *a* being *b* is a case of *e* being *f*." Here we treat the expression "case of *a* being *b*" as though it designated a thing which had the attribute of being a case of *c* being *d;* and so on.[13] And then we can treat the whole as though it were a categorical syllogism in the mood Barbara.*

(b) We use the *is* in another extended sense when we say that there *is* a thing which is thought about or that something *is* in someone's mind. If whatever is thought about could be said to *be* in the strict sense, then there would be such a thing as a contradiction whenever someone thought something contradictory or had two contradictory thoughts. But strictly, what there *is* in these cases is only the thinker and not the thing that he is thinking about. This extended usage comes easily. Just as a lion may be said to beget a lion, a builder who conceives a house may be said to produce the house that he conceived. Even a painting is often said to depict that which it evokes in the viewer's mind; but although the painting as such may be said to *be* in the proper sense, that which it depicts may not. There need not *be* anything at all that the painting depicts. Similarly a person may think of something even though what he is thinking of does not exist.

Two thinking individuals may differ as such in several ways. Thus one may accept or affirm what the other denies or rejects. Or they may accept or affirm

* Note also the following. For brevity's sake we often combine several judgments, even when some are affirmative and the others negative, into a single proposition. Thanks to the fiction of negative magnitudes, the mathematician can treat a series of additions and subtractions as an addition; and thanks to the fabrication of the present extended sense of is, we can combine a series of affirmative and negative statements into a single statement by making use of participles and negating them. For example, we may combine "the being of *a*" and "the nonbeing of *b*" and "the being of *c*"; and the *"a," "b,"* and *"c"* themselves may be participial expressions.

Such combinations are all the more natural because certain compound judgments are built up upon other judgments, some being affirmative and the others negative, and the compound judgments cannot be made unless the other judgments are made. Suppose that one accepts or affirms a man but denies of him that he is healthy. In such a case, instead of saying "There is a man and he is not healthy," we can say, not only "A man is not healthy," but also "There *is* a nonhealthy man." In the latter case, we seem to be accepting or affirming something negative as though it were a kind of positive being. But what we are saying in fact is: 'Whoever affirms that there is a man and denies of him that he is healthy is judging correctly."

different things. And so when we wish to state how one thinking individual differs from another, it is natural to characterize the thinker by reference to that which he is thinking about and to the way in which he relates to it as a thinker. We thus speak as though we were concerned with a relation between two things. We may suppose that the relation has a converse and then use the active voice to express the one and the passive voice to express the other. But actually there is no distinction of doing and undergoing here. Our language in these cases treats the object of thought as though it were a *thing* along with the person who is thinking. And thus we have an extended sense of being.[14]

(c) Whenever we think of anything, we think of it in a certain temporal mode. We may think of one and the same object in different temporal modes. The object is the same, but the way in which it is presented is different. This is why "Caesar is past" does not express the same affirmation as "Caesar is"; the two affirmations are made in different temporal modes. My assertion "Caesar is past" can be true only if the assertion "Caesar is" is false. *Past* is not a predicate which is applied to Caesar; I am not affirming a compound of the two predicates. Now instead of saying "Caesar is past" one might use the locution, "There is a Caesar that is past [*ein gewesener Caesar ist*]." In such a case the Caesar that is past is taken as a thing and we thus have another extended sense of being. And of course we would have still another, even more extended sense, if we went on to say "There *is* Caesar's being past."

(d) Just as one is led to say that there *is* the being or non-being of a thing, and also the possibility or impossibility of a thing, one may also be led to say that there *is* the non-being of the non-being of a thing, or that there *is* the impossibility of the non-being of a thing. After all, one judgment may relate itself critically to another.

(e) Everything that *is*, is fully determinate, but we often conceive a thing without conceiving it in all its determinations. If I conceive an animal in general terms and make a general assertion merely to the effect that there is an animal, my judgment can be true only if there is a completely determinate animal, for that is the only kind of animal that there is. But in judging only there is an animal, I do not specify any of these further determinations. Just as we say of names spelled alike but differing in usage that they are homonyms, we could call such general thoughts *homonoumena* or *homonoeta*. If I combine attributively two homonetic thoughts, I form a compound thought which may be less homonetic; yet it may be that none of the things corresponding to my compound thought is itself compound. Suppose the object of my thought is *something colored red* and not just *something colored*. I may yet think of it as *something colored*, in which case not all the determinations of the object will be thought of by me. More exactly, it may be that if someone has the thought of *something colored* he thereby also has the thought of *something colored red,* but he will be

thinking of the thing only insofar as it is *colored* and not insofar as it is *colored red*. In this way we are led to such abstract expressions as *color* and *redness*.

C. GENERAL OBJECTS AS BEINGS IN THE EXTENDED SENSE
(9 February 1914)

1. We can speak only about what we think, and differences in the ways in which we think lead to differences in verbal expression. We may think about something in a general way, and in more or less general ways, and we may think of something in an individual way. Only in the latter case is the thing thought of fully determinately. And only in the latter case is it determinately designated (provided the verbal expression is not equivocal and only one thought is associated with it).

That which may be thought of in general terms may be thought of with varying degrees of generality.

When I say that what is conceived in a general way is also conceived in an indeterminate way, I may seem to be saying very different things. But the two characterizations coincide completely. If I think of something in a general way and *negate* what I have thought, then it would seem that I am making a general negation. For example, the proposition "There is no tree" rules out the existence of even a single tree. On the other hand, when I conceive something in a general way and *accept or affirm it,* all that is required for my statement to be true is that there be *something or other* corresponding to my concept. Nothing is determined with respect to the individuality of the thing; even its specific or generic nature may remain undetermined. Thus, the two statements "A tree is green" and "A tree is not green" may both be true even though the word "tree" has the same meaning in both. This word is not here ambiguous or equivocal, but the single sense that is connected with it is indeterminate. By means of this single sense one is able to think of this or of that thing and to designate one or the other by means of the name associated with the sense. It is sometimes said that, when we think of something this way, the thing is thought of *universally;* it might by better to say that it is thought of *indeterminately*.

2. We often say that the thing that a person is thinking about is "in his mind"; if we take this literally, we must also say that if one thinks of something in general or of something indeterminately, then there is something in general or indeterminate in his mind. But this is easily recognized as a most improper mode of expression. If anything could be said in the proper sense to *be* in the mind, then that thing would exist. And so if the objects of our thought actually *are* in the mind, then whenever anyone thinks a contradiction, there would have to *be* a

contradictory object. But this, of course, is impossible. In such cases, only the person thinking the contradiction can be said to *be* in the proper sense. Consequently, it is entirely wrong to assume that the person thinking bears a *relation* to the object of his thought. When a relation obtains between two things then each of the things may be said to *be* in the strict sense of the term. But only the persons thinking, not the things *qua* objects of thought, may thus be said to *be* in the strict sense. And so, from the fact that we often think about something universal or indeterminate, it does not follow that, in the strict sense of the word, there *is* something universal or indeterminate.[15]

3. If we ask, "What, then, *is* there in the strict sense of the word?", the answer must be: "That which is to be accepted or affirmed in the *modus praesens.*" More precisely: "Whatever there is, in the strict sense, is a *thing* which is to be correctly accepted or affirmed in the *modus praesens.*" For nothing other than a thing can ever be correctly accepted or affirmed in this way. Indeed, nothing other than a thing can ever be correctly rejected or denied. For only things, and nothing else, can be objects of thought (whatever the temporal mode may be). For the name *thing* is the most general of all names; it is so general that it designates whatever falls under any other concept.[16]

D. UNIVERSALS AND THEIR SPECIFICATIONS[17]
(March 1916)

1. However different the objects of our thinking may be, all of them must fall under the same most general concept, namely, that of a *thing*, an *ens reale.* If this were not the case, the term "thinker" (i.e., "one who thinks something") would be equivocal. Occasionally, however, our language suggests that we are referring to something that does not fall under the general concept of thing, and hence that we have as the object of our thought something of which in fact we can have no idea at all. Taking language literally, we say that certain nonthings are the objects of our thoughts, even though we are not really thinking of such nonthings. And yet such fictions enable us to express ourselves effectively – indeed sometimes more effectively than we could without them. But in the end we should not lose sight of the fact that such fictive statements may be paraphrased back into a more strict and proper mode of expression.

(a) Obvious examples of such fictions are so-called *intentional beings.* We speak of "a contemplated man," or of "a man who is thought about by this or that thinker," and our statements are like those in which we actually do speak of a man. But in such a case what we are thinking of *in recto* is the person thinking of the man. If the person thinking of the man *is* in the strict sense, then the

contemplated man *is* in the extended sense.

(b) Another example is provided by the Aristotelian *forms*. Even those who realize that there are no forms may occasionally proceed as though they are *entia realia* which are denoted by abstract terms in the way in which other things are denoted by concrete terms. This procedure may enable one to perform certain intellectual tasks more easily, provided that what has been expressed in abstract terms is eventually translated into concrete ones.[18]

(c) The so-called contents of judgment also belong here. Expressions such as "not-being," "impossibility," possibility," and the like, as well as whole sentences, are often used as grammatical subjects and predicates, as if they were names of objects and actually designated something. One says, for example, "That Caesar once lived, is something that is certain," but it would be an error to suppose that the grammatical subject of this sentence denotes a *thing* as does "Caesar" and "someone now living." Yet philosophers have often assumed otherwise and have spoken of truths which exist outside the intellect and which, like God, are necessary and eternal. Some have gone even further, arguing that truths cannot exist unless there also exist the various concepts which they involve, and concluding that the concepts, too, are eternal and independent of God.[19] But philosophers would never have arrived at such absurd notions if they had kept in mind that they are dealing with fictions, and had taken the trouble to rephrase their statements. Then they would not have spoken of such things as "the eternal subsistence of the impossibility of a round square." Instead of expressing themselves in ostensibly affirmative statements, they would have expressed the negative judgment which apodictically rejects a round square. The mathematician is dealing with *entia rationis* when he speaks of the so-called imaginary numbers or even irrational numbers.[20] He would not operate with absurd fictions of this sort unless they served essential practical purposes.

(d) The *entia rationis* would also seem to include the so-called *denominationes extrinsecae*. Here certain expressions are taken to designate accidents of subjects when in fact they do not designate such accidents at all. The following is an example: someone makes the two judgments, *A is* and *B is* (or *A is* and *B is not*), then, instead of saying as much, he expresses his thought as follows: "One of the things that there are is an *A existing with B*" (or "One of the things that there are is an *A existing without B*"), speaking as if *A* were conceived modally as being *a thing which exists with B*.

(e) Another class of *entia rationis* is that of the universals. No thing is universal (i.e., indeterminate). Whatever *is* is fully determinate; anyone affirming that there are things indistinguishable from each other would contradict himself. But a thing that is completely determinate in reality may yet be thought of without its complete determination. In this way, several different things may correspond to the same idea. Then we say that they are thought of as falling under a concept

common to all of them, and that this concept is a universal concept. This shows clearly that no universal *is* in the strict sense: it *is* only in that extended sense in which we say that a contemplated thing *is* something in the mind. Strictly speaking, what exists is only the person thinking universally – the person who is thinking of something as falling under a universal concept.

It is an error, then, to affirm that there are universals in the strict sense. But it is *also* an error to deny that anything real can correspond to a universal idea. Universal ideas are distinguished from individual ones precisely because of the fact that a multiplicity of things *can* correspond to them.

Those who make the first error have been called "extreme realists"; those who make the second have been called "nominalists." (It would be more fitting to call the latter "conceptualists" and to reserve the term "nominalists" for those who reject universal ideas.)

The term *Universal* has been opposed to the term *Individuum* (one might also say *Individualisatum*). This same extended distinction is also made with reference to thinking. Thus one may contrast universal and individual things which are objects of thought. A person is said to have an individual as the object of his thought when he thinks of something in a way that is not completely determinate but which is sufficiently so that only *one* thing can correspond to it. And we also say, of things that exist in the strict sense, that they are individuals, since nothing in reality is indeterminate.[21]

2. In the light of the foregoing, we can readily see what is to be understood by a *principium individuationis*. If one speaks of an individuum as it exists "in the mind," then the *principium individuationis* is whatever distinguishes it in content from the other things that fall under the concepts under which it is thought. (Can the individual difference be thought of in itself or must it contain the more general concepts? This remains to be investigated. What marks off *the red* from *the colored* cannot thus be thought. This individual difference has been called *haecceity, thisness,* or *individuality.*)

But a principle of individuation has also been ascribed to real things. That of accidents was supposed to be the substance of which they were the accidents. That of the incorruptible substances was supposed to be the *infima* species, so that here each species could contain only one individual. By contrast, that of the corruptible substances was supposed to reside in their matter, i.e., in that which permanently underlies changes but exists only as a possible being and not as an actual being.

It is clear that we are dealing here with fictions. What they were meant to accomplish may be illustrated this way. The transformation of wood into fire was supposed to be a substantial corruption; but one and the same individual fire could never arise from two different pieces of wood even though they are uni-

formly transformed into fire as a result of the same cause. Individuality would thus seem to be determined, not by any active principle, but by the special nature of that on which such a principle might be said to act. Now and then a transformation in the reverse direction would restore the former individuality. Hence things that may be transformed into each other would belong to a unique individuation circle. And thus it was thought that one can speak of something permanent as a principle of individuation. I mention this merely as a matter of history, reserving critical analysis for another occasion.

3. If, for the moment, we allow ourselves to speak in an extended sense, as though there really *were* universals, we may say that for every universal there is a certain *range* or *extension* [*Umfang*], insofar as many things may correspond to it. The extension of two universal concepts may coincide completely; or they may have nothing in common; or they may coincide only partially, as in the case of the concepts *warm* and *red*. We may combine universals, forming a new concept covering only a part of the extension of the original concepts. By thus enriching the content [*Inhalt*] of our concept, we reduce its extension. To say that the extension of one concept is wider than that of another is to say that whatever falls under the latter also falls under the former, but not conversely. Hence, if two general concepts have no part of their respective extensions in common, we cannot say that one extension is wider or narrower than the other and we cannot say that the two extensions are equal.

4. Restriction of a concept can be effected by specification, as when I specify a *colored thing* as a *red thing*. It can also be brought about by combining a concept with something which is accidental to the thought of its object. Thus I may specify a *colored thing* as being a *thing that is two feet long*. If I differentiate a *colored thing that is two feet long* as being a *red thing,* then obviously this specification applies to it, not to the extent that it is a *thing that is two feet long* but to the extent that it is a *colored thing*. I might consider a *thing that is two feet long and colored and flavored*. If I then specify it as a *thing that is two feet long and red and sweet,* I would be specifying the thing in one way with respect to its being colored and in another way with respect to its being flavored, but not specifying it with respect to its being a thing that is two feet long. Thus, whenever we deal with a compound concept, analysis will show that an individual specification that is brought about by a restriction specifies only one part of the concept as such and has restricted its other parts only accidentally.

But in may turn out that the conceptual attribute specified in this manner is one that itself specifies a more general concept which it contains. Thus *colored thing* may be a specification of *qualitative thing*. Then we find that two general concepts have been specifed, one directly and the other indirectly. By proceeding

in this manner we obtain a series of specifications ranging from a *species specialissima* to a *summum genus*. The former admits of no further specification, the latter of no further generalization.

5. Some accidental attributes do not seem to be restrictive when they are combined with a specific concept, whereas they would be restrictive when combined with the corresponding generic concept. Thus the concept of *rational being* is not restrictive when combined with that of *man,* but it is restrictive when combined with the concept of *animal* or *living thing.* Such an attribute is called a *proprium* in this respect. If it is not restrictive of the generic concept, then it is also a *proprium* with reference to a species subordinate to the genus. For example, *thing capable of sensation* is a proprium with reference to the genus *animal,* and a *genikon* with reference to the species *man.*

An attribute that is predicable neither as *proprium* nor as *genikon*, and is not an element of the definition, is an accidental attribute. That which belongs to something in virtue of an accident, belongs to it *per accidens,* as contrasted with that which belongs to it *per se*.[22]

6. Can one and the same genus receive *two* specifications which are mutally compatible in the sense that one and the same individual may exemplify both and with reference to the same individual part? Then the specifications would overlap. We do not have this when the specifications are red and blue or when one is affirmation and the other negation, but we do seem to have it in the case of what is moving in space. A moving body may be specified as moving now here, now there, and at the same time as moving with this or that velocity, and again as moving in this or that direction or pattern of motion. All these determinations seem to be *direct* specific differentiae of the moving body and indeed of anything which as such *is* somewhere. The concept of a thing that is at rest somewhere can be co-ordinated with the concept of a thing which is in motion somewhere. Similarly, that which is judging seems to be directly specifiable in several ways: as judging affirmatively or negatively, as judging in the *modus praesens* or in another temporal mode, as judging about this or that object, as judging assertorically or apodictically, as judging blindly or with evidence, and as judging on the basis of this or that motive.

Then the specifications may overlap. That which is spatial may be differentiated first as *that which is here*, and subsequently as *that which is at rest* or *that which is in motion with such and such a velocity:* or we may first differentiate it in the latter way and then in the former way. Similarly, that which is moving itself may be differentiated first as that which is moving in a certain direction and in a certain pattern of motion, and subsequently as that which is moving with a certain degree of velocity, or we may do it the other way around. None of these

additional attributes of that which is localized would be accidental.

Aristotle denied the possibility of such overlapping specifications. Yet he held that, in addition to quality, there are also differences in degree, and he took these differences of degree to be specific differences of the qualities themselves. It seems impossible, however, to regard these differences of degree as accidental to the given individual quality.[23]

7. We must disagree with Aristotle on still another point. He says that things may fall under several different *summa genera*. This is inseparable from his view that there cannot be a multiplicity of overlapping direct specifications. Since he was mistaken on the latter score, there is nothing to prevent us from agreeing with Plato about the unity of the concept of that which is. The concept of an *ens reale* – or *thing* – is the sole *summum genus*. The possibility of multiple overlapping specifications carries the implication that one and the same individual thing can belong to several *species specialissimae*. If these were given to us, then a combination of some of them – or perhaps just one of them – would turn out to be individuating. This seems to be what we have in the case of spatial determination and in particular its differentiation as *here* and *there*. In the domain of thinking, however, no individuating differences are given to us intuitively.[24]

E. THE BIZARRE DISTINCTION BETWEEN BEING AND EXISTENCE
(22 March 1916)

1. That the term being is used in several senses was pointed out by Aristotle himself. Thus he distinguished the strict sense of *is* we have in the statement such as "There is a man" from the sense of *is* to be found in "it is true." In answer to a question, one may say, "That *is* so", or "That *is* true". But what is being said can also be expressed by a statement in which the *is* functions in the strict sense. For example, when one is asked, "Is a tree a plant?" one may say not only, "That is so," but also "A tree is a plant" or "I believe that a tree is a plant."

According to Aristotle, another special sense of being is that of *potential being*. One says that water is potential ice because it can be changed to ice. More exactly, one is saying this: water is a thing concerning which I deny that it cannot be changed to ice.* And this can be reduced in turn to the following: water is a thing concerning which I deny that one who thinks it has turned into ice is judging absurdly. And so here, too, we can affect a reduction to linguistic expressions using "is" in the strict sense.

Aristotle further singled out what he called a being *per accidens*. To un-

* [Reading *"Eis"* for *"Schnee."*]

derstand what this means, it will help to recall certain sophistries. A sophist asks, "Do you know who the man in disguise is?" – "No." – "Then you do not know who your own father is." Or: "Can what is sweet be seen as well as tasted?" – "No, it can only be tasted." – "Then you cannot see sugar." (The sophist is playing upon the inherent ambiguity of the *ens per accidens*. In the first example, knowledge that the man in disguise is my father is confused with knowledge that my father is such and such a person. In the second example, the assertion that sight cannot apprehend differences in taste is distorted by the sophist into the very different assertion that sight receives no color sensations from things that can bring about the sensation of sweetness.)

Aristotle explains the *ens per accidens* as follows. In predication, subject and predicate are sometimes related by identity, as when we say that a man is a living creature (for the man cannot cease to be unless the living creature ceases to be, and conversely). Sometimes, however, subject and predicate are not identical, as when I say that a man is clothed or that he apprehends a certain truth (for he would be the same even without the clothes or without the apprehension of that particular truth). And so Aristotle says that the sense of "is" in which we may say that a man *is* a thing that is clothed is not the same as the sense of "is" in which we may say that he *is* a man.

One might object that the statement "A man is clothed" can be reduced to "There is a man which is clothed" where the *is* performs exactly the same function as in the statement "There is a man." One might then go on to say that predication never involves the identity of subject and predicate but is always a matter of connecting two different things in thought and then accepting or affirming the whole that results. Perhaps Aristotle would reply this way: this whole is manifestly a *Collectivum* and as such can be said to *be* only in the improper sense; in saying that there is the *Collectivum*, we may seem to be making a single affirmation, but actually we are making several different affirmations. And there are more complex cases. Thus we may seem to characterize a thing by means of a negative predicate. Or the predicate may be thought in a temporal mode different from that of the subject and yet affirmed in the way in which the subject is affirmed. (An example would be "This beggar is a former king").

Divergence from proper use of the *is* in cases involving the *ens per accidens* seems to be confined to statements in which a multiplicity of judgments are express as though they were a single, unitary affirmation. Analysis of such statements may disclose now a multiplicity of affirmations in the same temporal mode, now a multiplicity of affirmations in different temporal modes, now a multiplicity of judgments of different quality, and so on. And so here, too, it is possible to reduce the statements to expressions in which the *is* would function in the strict sense.

Aristotle also says that there are as many different senses of being as there are

categories. Possibly he thought that "There is a thinker" is better expressed by "A thing is thinking" and then concluded that the thinker is not itself a being but is rather something that is *of* a thing, something that applies to a thing.

In my opinion, however, the accident *is* a being in the same sense as the substance, and a *Collectivum* is a being in the same sense as a single thing.

2. This does not prevent me from agreeing with Aristotle that the "is" can be used in both strict and extended sense. But a closer examination shows in each case that, whenever we make a judgment, we are thinking of things in some temporal mode or other, sometimes accepting, sometimes rejecting, now in one modality, and now in another. And when we express these judgments, we make use of fictions instead of terms designating the actual objects of the judgments. This is what the mathematicians do when they speak of the addition of negative quantities, of dividing one into many, or of irrational and imaginary numbers, and the like.

3. Extended use of the *is* may also be illustrated by such statements as "The rose is a flower." Windelband said that, according to my interpretation, this is equivalent to the statement "If there is a rose, then it is a flower." Everyone feels that such an interpretation is wrong, and in fact it is not one that I would defend. In my opinion, the statement "If there is a rose, then it is a flower" is synonymous with the statement "There is no rose that is not a flower" or even "All roses are flowers."

On the other hand the statement "The rose is a flower" lends itself to two interpretations:

According to the first interpretation, the *is* functions in the improper sense, and the statement is taken to be affirmative. Then "Rose" would be understood to denote an individual thing that has all the properties belonging to every individual rose and no properties some roses have and others have not. The individual thing which would be the universal rose *qua* universal. But this interpretation is erroneous.

According to the second interpretation, the sense of the statement "The rose is a flower" is this: whoever thinks of something that falls under the concept of rose thinks of it as a flower. This interpretation makes it clear that "the rose" here means the same as "the general concept rose." And so "rose" is to be taken, not in the strict and proper sense, but in the same improper sense in which something is said to be in the mind or to be merely thought of. Rephrased back into a statement concerned with being in the proper sense, "The rose is a flower" tells us that in thinking of a rose, I am thinking of a thing as a flower specified in a certain way. And now there is no possibility of finding an error.

4. In recent times there has emerged a bizarre variant of the doctrine of the manifold sense of "is." Bolzano distinguished an "is" in the strict sense from an "exists." According to him, "exists" signifies a specification of "is," so that everything that exists can be said to *be,* but not everything that *is* can be said to exist. Others, for example, Meinong and Höfler, have followed Bolzano in this respect. Only *things* are supposed to exist, whereas the following may be said to *be:* truths (the truth that 2 and 2 are 4), falsehoods (the falsehood that 2 and 2 are 5), possibilities, impossibilities, phenomena, and objects of thought. If a thinking man exists, then there is the *being a thinker* which a man has and there is the *being a man* which a thinker has, but these beings do not exist. Again, if there is a man who is not sleeping, then there is the not-being-asleep which applies to a man and the being a man which applies to a thing that is not asleep. Moreover, there is the being of the not-being-asleep of a man, and the being of the being of the not-being-asleep of a man, as well as the nonbeing of the not-being-asleep of a man. Thus Bolzano had said that if *A* is, there is also the truth that *A* is, and so forth – thus resulting in a infinite series of truths.

The objects of general concepts are also supposed to *be* in the same generality in which they are thought, but without existing.

The supporters of this view maintain that the question of whether these truths and universals *are* outside our thinking and independent of it must be answered in the affirmative. But some of them also seem to hold that truth and general concepts can *be* only in an intellect. This intellect is supposed to be a universal intellect and not a particular one. Such a conclusion would not surprise us if universals as universals could be said to be without existing. For in such a case one would have to say that they are in an intellect which itself *is* but does not exist and which is only in itself.

5. What are we to make of all this? Of course it is related to the fact that fictions, as already noted, serve useful purposes both in mathematical language and in ordinary language. But the oddities in question also have something to do with the fact that in German the expressions for "to be" [*sein*], "to subsist [*bestehen*] and "to exist" [*existieren*] and the various expressions for "there are" – *es gibt, es kommt vor, es trifft sich,* and the like – are such that in some contexts they are interchangeable but in other contexts one may be preferred to another. For example, we say in German that a possibility subsists [*bestehe*] rather than it exists, although *bestehen* is the exact German equivalent of *existieren.* Indeed, "There subsists" [*es besteht*] is generally preferred in this case to "there is" [*es ist* or *es gibt*]. On the other hand "God subsists" [*Gott besteht*] is not idiomatic: German speakers say "God exists" [*Gott existiert*]. Again they say "subsists" rather than "is" or "exists" when they refer to a privation or a defect [*es bestehe ein Mangel* rather than *es gebe ein Mangel* or *ein Mangel existiere*]. They do not

say spontaneously that an idea *exists* in the mind but rather that it *is* in the mind. One does not easily say "There are the men" [*Es gibt die Menschen*] or "There subsist the men" [*Es bestehen die Menschen*], or even *"Es bestehen Menschen."*

It would be difficult to discover any unitary set of rules governing usage in such case. One thing, however, is certain: of the terms in question, only "is" [*ist*] serves as auxiliary verb and as copula. We use *"ist"* to express the perfect tense and say *"ein Mensch ist gewesen."* But we would not say *"existiert gewesen"* or *"besteht gewesen"* or *"gibt es gewesen."* And almost no one uses "exists" [*existiert*] in place of "is" [*ist*] in "A man is learned" [*ein Mensch ist gelehrt*]. This is probably why the "is" [*ist*] has the appearance of being used in a more general sense, despite that the fact that sometimes "subsists" [*besteht*] is preferred.* This may have led to the delusion that the common sense that is manifest in our ordinary language justifies distinguishing between *existence* and *being* and applying the distinction to cases where "to be" is not used as an auxiliary verb or copula.[25]

* For example, in German *"es besteht"* is preferable to *"es ist"* in saying that there is the impossibility of a round square or that there is the possibility of a regular polygon with a billion sides.

II. REAL AND FICTIVE PARTS OF BEING

A. UNIVERSAL, GENUS, SPECIES, AND INDIVIDUAL
(30 September 1908)[26]

1. Our mental activities have only *things* as their objects. This does not mean that the things one has for one's object exist in reality. When I think of a golden mountain, I am thinking of a thing that does not exist in reality. This fact alone is a sufficient reason for saying that the diversity of our mental activities does not require a corresponding diversity of actual things which are their objects. But there is still another reason. One and the same thing can be object in a variety of ways; and a variety of mental activities can relate to one and the same object. One may merely think about a thing or one may also desire that thing. Again, one and the same thing may be thought more determinately or less determinately, or less determinately now in one respect and now in another. I can think of a particular red dot, determinate as to place and color. It is characterized as red and as being here. If it lacked one or the other of these attributes, it would not be this particular red dot.[27] But when I think of the concept of a red dot or of the general concept of something-that-is-here, then I may think indeterminately of what the red dot is and thus think indeterminately of the red dot.

2. One must not assume that the concept of "a red dot" or "a-dot-that-is-here" refers to a general thing – much less that it refers to a general thing in a wholly definite way. If one says, "There is no red dot" or "There is no red dot here," one denies that a particular red dot is here. And if one says, "There is a red dot" or "There is a dot here," then one has spoken correctly if a particular red dot is here whether or not there is any other red dot. But if one says, "There is a red dot," one is right if there is a red dot but no red dot here; and if one says, "There is a dot here," one is right if there is a red dot but not a blue dot here.

Failure to grasp these points has led to strange philosophical errors. Plato held that, corresponding to any given concept, there exists a thing which is different from any individual thing. He conceived this thing as existing by itself. William of Champeaux, on the other hand, held that this thing exists *in* individual things but as a thing distinct from any individual thing. One might wish to say that, according to him, the general thing is contained in individual things in the way in which a substance is contained in its accidents. But a substance can exist by itself, without the accident. And so then one would have to draw a similar conclusion

with respect to the thing that is supposed to correspond to the general concept. And this would lead to the absurd notion of a triangle having angless which are neither right angles nor acute nor obtuse.

Some recent writers say that, although the object of any general concept is indeed other than any individual thing, it is not itself a *thing* – and it may not be said to exist, but only to subsist. But this does remove any of the absurdities. For the triangle, having angles that are neither right angles nor obtuse nor acute, would still subsist. But such absurdities fall away once we realize that, as stated above, things can be proper objects of thought, now more, now less determinately, and less determinately now in one respect, now in another.

3. It is sometimes said that, when things are thought of indeterminately, they are also thought of universally. And it is here that the well-known philosophical controversies about the problem of universals have arisen. Among universals, one distinguished genera from species – the latter are more determinate. What falls under a species, always falls under a certain genus, and this is why the species is said to be subordinated to the genus. The species is in a way richer than its genus, but this does not mean that it has a wholly new additional attribute. What we have here is rather analogous to what we have found with reference to relation between the substance and accident. Thus this particular thinking substance contains as such this soul. Similarly, the concept *red thing* contains the concept *colored thing*. *Colored thing* differentiates itself as *red thing, blue thing,* and so on, but not by adding any difference that does not contain the concept of *colored thing*. A given species may also be superordinate to another species, and the latter to yet another; thus one may say that *qualitative thing* differentiates itself as *colored thing,* and *colored thing* as *red thing*.

4. The relation discussed above was already noted by Aristotle. But he also held that, with respect to any single individual, a genus differentiates itself only in *one* proximate specific difference, and then if necessary this difference will differentiate into another specific difference. According to him, even the lowest specific difference, in the case of things that are corruptible, does not lead to complete individuation. In fact, once we have descended in the series of differences from *qualitative thing,* to *colored thing,* and from *colored thing* to *red thing,* then we can go no further in this series. Hence there can always be many things which correspond in the same degree to the concept. Aristotle sees, therefore, that he must be able to cite something which explains the multiplication of different individuals all having the same ultimate specific difference within a given genus. And so for this purpose he appeals to a mere potentiality of the individual; this potentiality determines the specific difference in an individual way and it is that which persists in the case of transformation – i.e., coming into being or passing away. We refer here to Aristotle's well-known theory of *materia prima* as the principle of individuation. (How he arrived at the theory, what truths it contains,

and why it is untenable – all this I will not go into here. One could show, however, that modern authors who ridicule it have often advanced essentially similar notions. The difference is that the imprecision of their language simply conceals what is here so obviously untenable.)

5. If a lowest specific difference fails to individuate, what is it, then, that makes individuation possible and accounts for the numerical diversity of individuals in a given species? Obviously, this must be another, lowest difference of the same genus which is given at the same time. In saying this, we reject Aristotle's contention that one and the same individual cannot be defined by several proximate differences of the genus under which it falls – his contention that several proximate differences of one genus are not compatible in one individual. But let us consider an example – an individual red dot whose localization at *L* distinguishes it from another red dot at *O*. Were the first dot to be transformed into a blue one, it could still be located at *L*, but having been altered qualitatively it would no longer be the same individual dot. The determination "red" contains the determination "spatial"; the determination "located at *L*" contains the general determination "qualitative." Consequently, by ascending from the concept *red thing* to the concept *colored thing* and from the concept *colored thing* to the concept *thing that is qualitatively determined,* we reach the single concept of *corporeal thing,* that is to say, the concept of a *thing which is spatial and qualitative.* The individual is thus subsumed under one genus in respect of the two proximate specific differences.[28]

Specific differences which are related by subordination may be designated as homostoichetic (or monostoichetic); and those specific differences which are not related by subordination, but are differences of the same genus and the same individual, may be designated as heterostoichetic (or pleiostoichetic).[29]

6. The accidents, too, exhibit specific differences which may be called heterostoichetic as distinguished from those specific differences of substance which are also differences of its accidents.

Like a substantial difference, an accidental one may be further differentiated into species; to each of these, others may be subordinated, thus forming a homostoichetic series, and alongside the series so formed, a second series of differentiae of the same accidental attribute may be started. Thus, to take an example from the mental sphere, a person judging is judging either affirmatively or negatively. But a person judging can be further differentiated as one judging about this or that matter, and again as one judging in this or that temporal mode.[30]

7. If all the lowest differences which together determine the individuality of a substance are given, and if a new accidental determination is added, the latter may still be universal to some extent. This may be because it adds only a single generic attribute without any specific difference. Or it may be because of the fact that, even when a lowest specific difference of the accidental genus is given, the

new accidental individuation requires a concrete unification of several lowest specific differences. For example, I may consider "a soul" – whether conceived as body or mind – and add the determination that it thinks; but "this thinking soul" is not yet determined individually *qua* thinking.[31] It will not be the same *qua* thinking about *A* as it is *qua* thinking about *B*. And even when I say that it is thinking about *A*, my concept lacks complete individual determination. For it is left open whether the soul is thinking about *A* affirmatively or negatively and whether it is thinking about it in this or that temporal mode.[32] Only by combining all these heterostoichetic specific determinations is it possible to arrive at an individual accidental determination. The latter must therefore include both the substance with all its lowest specific differences and a new totality of additional accidental differences which, in combination with the substantial ones, constitute *one* supervening thing.

What has just been stated holds analogously for accidents of accidents. Just as a substance that is extended or enriched by an accident does not result in an additional thing, so an accident enriched by another does not result in a genuine plurality of things.

8. Since various series of differences exist for both accidents and substance, one might ask whether the whole distincion between substantial and accidental attribute cannot be dispensed with. Then the substantial thing conceived as a fully determinate individual would be defined as the sum of all its differences – those differences that were mistakenly thought to be classifiable as either substantial or accidental. This is actually the view of those who contend that nothing is left of the so-called substance once it has been stripped of its so-called accidental determinations. According to this view, one should not speak of a substance which is the subject of accidents; one should speak rather of a thing which is the concretum that results from various determinations which mutually differentiate each other.[33]

9. To refute this error, it it enough to point to the best example we have of a substance enriched with several accidents. Thus, I may consider myself when I am simultaneously hearing, seeing, and smelling. Were I differentiated substantially by the determination, *one who is hearing,* I could not remain the same individual *qua* seeing if I then ceased to hear, or even if my sensation of sound underwent some slight alteration. The same thing would hold for me as *one who is smelling:* I would not remain the same individual *qua* one who is smelling if I ceased to see. And analogously, for me as *one who is seeing*. But in fact I would remain individually the same as one who is seeing and one who is smelling. I would be individually different from a second person who is seeing, hearing, and smelling something specifically the same as what I am seeing, hearing and smelling. And as one who is hearing I would be individually different from a third person who hears the same thing that I do but who smells nothing at all and sees co-

lors other than the ones that I see.

The accidental determinations, then are heterostoichetic in relation to the substantial differences, just as the substantial differences are often heterostoichetic in relation to one another. But the accidental determinations are not thereby substantial differences for the individual substance, even though conversely, the substantial differences of the individual substance *are* at the same time differences of the accidental individual.

I believe these comparative observations may help appreciably to clarify the nature of the relation between substance and accident.

10. Let us now resume our discussion of universals – our discussion of indeterminate ideas. Is the difference between individually determinate and indeterminate thinking really a difference in the object, as was said above? Is it not rather a difference in the way in which we are thinking about the object? If one says that the difference *is* a difference in the objects, then one is readily led to a view about universals. One will say that there is a universal which is not *identical* with the individual in which it exists but which is a *part* of that individual; it is a part of that individual in the same sense in which a second individual contained in the first would be a part of it.[34] But the universal that is present in one individual would not differ intrinsically from the universal that is present in another. And if this were the case, how could they fail to be one and the same? This is why William of Champeaux came to regard every universal as a special unitary thing which, given in all the actual individual things that fall under it, is possessed of a kind of multipresence. It is certain that whatever exists, exists as an individual, and hence that every universal that belongs to a thing is individuated. But the universal is individuated by the determinations of the thing in which it is present. Therefore the universal is the *same* thing as the thing in which it is present.[35] Yet when this thing is object first of an individual idea, then of a general idea, it is not the same *qua object of thought* [*als Gegenstand*] in the two cases.

We may say this if only because a person thinking of something in a general way and one thinking of something in an individual way are not in fact completely identical as such.[36] And even if a person thinks of a thing now in this way and now in that, then he is not modally the same in the two cases.[37] But there is another reason for saying that the object of thought is not the same in the two cases. It is not specifically the same.[38] Consider a person thinking of something individually and one thinking of it universally. These two persons cannot be said to be the same specifically in the way in which two different persons thinking of the same thing with equal degrees of universality can be said to be the same specifically. How, then, are we supposed to interpret the difference? Should we say that since there is no difference in respect of the thing that is thought of, the difference lies in the way we are thinking about it? This, too, seems incorrect. The distinction between a stone thought of in one temporal mode and a stone thought

of in another temporal mode is wholly unlike the distinction between a stone thought of as this particular stone and a stone thought of in general terms. When we think we think of this particular stone *as* a stone in general, then the object of our thought appears to be different *as* object of thought, without our thereby thinking of it in a different way. In other words, the particular stone appears to be different from that which we are thinking of it *as*.[39] When we think of the object *as* stone and when we think of it *as* this particular stone, we have the same object of thought in each case; but what we are thinking of it *as* differs in the two cases.

Thus it can happen that, where the object of thought is the same, the person thinking of it is nevertheless different in respect to the object; and it can happen that, where the object is not different, none the less it is being thought of *as* something different. And so it may be undetermined just what the object is, even though there is *no* doubt about what it is being thought of *as*. When one person says, "I see something colored," the object may be a red thing, but it may also be a blue thing; what is certain is that whatever else the object may be, it is thought of as a colored thing. When another person says, "I see a red thing," he may be thinking of the same object as is the one who says, "I see a colored thing"; but the two persons are not thinking of the object as the same thing.[40] Thus some thoughts may be indeterminate with respect to *that which* is being thought, but determinate with respect to what it is being thought of *as*.

We have, then, an indeterminateness which pertains, not to *what* is being thought of, but rather to what a thing is being thought of *as*. It follows, then, that our presentational activities may be distinguished in one series, not by reference to the object of thought, but by reference to what the object is thought of as. If now an idea which is thus not determinate with respect to the object of thought serves as the basis for an affirmative judgment, then the judgment is as indeterminate as the idea itself. A judgment thus based on an indeterminate idea is determinate only when it is negative. But this is so only because the opposed affirmative judgment, despite its indeterminacy is definitely false – that is to say, false within the entire range of its indeterminacy. Hence the negative judgment pertains to this entire range of indeterminacy, for it rejects universally the indeterminately thought object. For this reason, the distinction between general and individual may be applied to that which the object may be thought of as. One could also use the expressions "indeterminate" and "determinate"; indeed, these terms would be more appropriate, not only for the ideas themselves, but also for the universal affirmative judgments that are based upon them.

11. But we must guard against one possible misunderstanding. Consider a person whose object of thought is a thinking soul. What I have said should not be taken to mean that, to the extent that the person thinks of the object as a soul and to the extent that he thinks of it as a thinking something, the object is the same

and only that which is thought of *as* is different.[41] This soul is the same individual soul even when it is not thinking, but this *thinking* soul is another thing, even if it is not wholly other than the soul when it is not thinking. Consider an even more obvious case: when we conceive one and the same man now as one who is seeing and now as one who is hearing, then the objects of thought are only partially identical; so, too, for what the objects are thought of as. They are other but not entirely other. The situation is different, however, when a relation between a universal and an individual idea is involved: thus two persons may think of the same thinking man; but one of them thinks of him as a man who is contemplating the law of contradiction, and the other thinks of him wholly indeterminately as being simply one who is thinking.

12. The foregoing discussion may be summed up as follows. However various our ideas of things may be, the differences of the ideas are not just a function of the differences of the objects of thought; they are also a function of what the object is thought of *as*. It is possible that the objects may differ and yet that one and the same idea may serve to present either one of them. And also conversely: one and the same object may be presented by two ideas which differ with respect to the object. We have the first case when someone is thinking of a man: the man could just as well be Plato as Socrates, since both fall under the universal concept man. We have the second case, when I think of Socrates as a man and as a living creature.

So much, then, for the specifications of ideas with reference to objects as such.

13. It is clear why our ideas are divided, with respect to the object, into individual and general, and the latter into more and less general. This gives rise to orders of generality: the more general of two concepts is called the concept of the genus, the other the concept of the difference. The latter can be a genus relatively to another specific difference or it can be a species relatively to an individual idea falling under it.

But it is equally clear that the objects can *not* similarly be divided into generic, specific; they cannot be classified into general things and individual things. The objects of our ideas are always individual, whether our ideas if them are individual or general.

14. Not every distinction of matter [*Unterschied der Sache*] has as its consequence a distinction in the idea of the matter. And not every distinction in an idea with respect to its object points to distinction of matter. Yet material differences can be distinguished among ideas. Objective differents may represent a variety of material distinctions. This is the case, for example, when we conceive *something that hears,* as such or *something that sees,* or when we conceive a mind or a body as such. What corresponds to the concept of *something that sees* cannot be fully identical with that which corresponds to the concept of *something that hears.* And what corresponds to the concept of a mind is a entirely different thing from

that which corresponds to the concept of a body.[42]

15. All things, however, fall in equal degree under the concept of *something* [*Etwas*], which is none other than the concept of a *thing* or *entity* [*Wesen*].*

B. WAYS OF COMBINING OBJECTS OF THOUGHT
(30 September 1908)[44]

1. Things can be thought of in an individual way, and they can also fall under indeterminate concepts.

There are things which are a sum of several things. And there are things which consist of things that are not wholly different, nor yet wholly the same.

For these reasons a real aggregate can at one time be the object of a single presentational act, and at another time the object of a manifold presentational act. We may form a determinate idea of an aggregate by means of a single presentational act, but in such a case the idea is confused.[45] We conceive the aggregate more distinctly when its individual parts, both real and logical, are objects of separate presentations and are thought in their relation to one another and to the whole. The degree of distinctness so achieved may vary to a great extent. According to Leibniz, completely distinct ideas may be called adequate ideas. We shall not inquire here whether such ideas are attainable in all cases, but there is no doubt that some ideas are relatively distinct. We will take note of the ways in which these relatively distinct ideas may be distinguished from partial presentational activity. In so doing, we can best inform ourselves about the variety of real determinations, both absolute and relative. And in this way we can also refute those philosophers who say that we have concepts that are not derived from intuition.

2. By drawing from the store of conceptual elements which are supplied by outer and inner intuitions, our mind can form a variety of constructions of its own. It puts these elements together in a great variety of ways; but these ways of combining the elements are all such that they have first been given in intuition as holding among *entia realia*.[46]

In particular, the following types of combination may be distinguished:

(a) *Identifications.* Identity is given when one thing falls under several concepts. One of the concepts may be more general and the other less general; or the two concepts may be two species of a single genus and such that they are not

* Should we also say that the concept of *something* is the same as of substance? Perhaps it is better to distinguish between *substance* and *entity*, and to speak of substance only relatively to an accident. This would also indicate that a substance itself cannot itself be an accident; there is no further thing which underlies a substance.[43]

homostoichetic. Thus a *thing which is red* may be identical with a *thing which is colored;* and a *thing which is red* may be identical with a *thing which is here.*[47]

(b) *Attribution.* Here we consider those cases where a substance underlies an accident. The accident is then the attribute and the substance is the subject. In these cases we can say either that the substance *underlies* the attribute or that the attribute *inheres in* the substance. As we have already noted, accidents may be related to each other in analogous way: one accident may underlie another. Thus one may speak of an accident of a second order. And it may well be that we can also speak of an accident of a third order or indeed of any order *n.*[48]

(c) Co-attribution. This type of combination, which is closely related to the preceding one, is to be found where a substance – or an accident – underlies several accidents. Thus we have here a complication of the previous modes of combination. By being combined with the same subject, attributes are also connected with each other.

(d) *Addition.* This is a mode of combination by means of strict addition. It may also be called *copulation.* It is to be found whenever several things are contained in a single *ens reale.* Thus we have addition when I think of a man and a dog. And, of course, the case where I think of several men also belongs here.

(e) A plurality of things may be so united in a single presentation that each of the things is conceived of as *"one or the other* of the group." Here we have a distinctive concept which is predicable of each of the things, however different they may be in other respects. Thus having connected a man and a dog in thought, I form the idea of "either one of the two." In such cases one speaks of *disjunctive* concepts. We would seem to be dealing with a modified disjunction when one subject is conceived as having *either* this *or* that attribute but not both. The subject is then connected with "one or the other" of the two accidents.[49]

The conjunction "and" is the linguistic expression for addition. Attribution and identification are expressed by means of adjectives and apposition. A *thinking soul* is an instance of the relation of attribution; a *red colored thing* is an instance of the relation of identity, a *tiger-animal* is an instance of identification; and a *fool-king* is an instance of identification and co-attribution.

4. The case where something mental is thought of deserves special attention. In this case the object is itself presented as something that *has* an object; and therefore it is partly determined in its nature by the nature of the object that it has.

To the extent that we think of a mental act as relating to another object, we are then thinking of another mental act. Suppose I think in an entirely general way of someone who is thinking of something or other. By identifying this something or other I can think in a more specific way about the thinker *qua* thinker.[50] But I can also complete the identification of the object without thereby thinking of the

thinker *qua* thinker in a more specific way. One and the same thing can fall under several concepts and thus become an object in different ways. (Thus one and the same thing is a man and also a living creature.) Suppose I say, "a man thinking something." I am able to specify the *thinker* by reference to this something only to the extent that this something constitutes the object of his concept. For example, I might think that he is thinking of something as a man. Then when I identify that something in and for itself, and not insofar as it is being thought, the one thinking it is not specified.[51] For example, I might think of something in this way: it is a red thing which another person is thinking of as a colored thing. The object of my thought is then (1) someone thinking a colored thing and (2) a colored thing which corresponds to the one who is thinking a colored thing – and I identify the colored thing with a red thing. This case strictly involves both addition and identification.[52] Indeed, one could say that it involves something else as well. For I am thinking of the colored thing and the one who is thinking as standing in a kind of agreement or correspondence, and this is a relative attribution which includes both the person and the thing.[53] Here, too, the verbal expression easily lends itself to ambiguities.

5. Now we must ask: is this case, which involves both an addition and an attribution of *relative determinations* a special type of combination which has not been covered by the foregoing?

Possibly we can answer this question in the negative. But if we do then it is essential to note that the relation of agreement or correspondence exhibits several strikingly different forms.[54] Thus there is the agreement or correspondence between a dog and a person thinking of a dog. And this is very different from the agreement or correspondence between a poodle and a bull dog. Aristotle says that the art of healing is, to a certain extent, health. He also says that God's creative thought is, to a certain extent, the created thing. He says this latter in order to preserve his general thesis that things that exist actuality were previously things that existed only in potency. But with his "to a certain extent" he indicates a significant difference. Strictly what can be said to exist in God is only one who is thinking of the thing to be created. The statement that the thing itself is in God is a linguistic fiction. We should say more precisely that the thinker exhibits this agreement or correspondence in virtue of one of the characteristics in that series which specify a thinker by reference to his object.[55]

As a consequence of this type of correspondence or agreement which obtains between a thing and a person who thinks of the thing, we may also assume that a kind of correspondence or agreement also obtains between one thinking thing and another. On closer examination, however, this correspondence or agreement turns out to be of the same type as that which might otherwise hold between one real thing and another. Even when both persons think of the same thing individu-

ally, they are themselves the same only in species. They are alike with respect to the series of characteristics which specify a thing by reference to its object [*in der Serie der Gegenständlichkeit*]; but this agreement may continue even though the thought of one of them is directed upon the object in a way different from that in which the thought of the other is directed upon it.[56]

If the two thinkers think about the same object, but one of them thinks distinctly and the other confusedly, the thinkers will still correspond or agree with one another, but only in respect to a part of their thinking. For distinct thinking contains confused thinking as one of its parts, but it combines this with additional acts of thinking.

6. It has also been asked whether a person who thinks of 12 is thinking of the same thing as one who thinks of 7 plus 5.

Our answer: if both persons think distinctly, then they are performing the same intellectual act. As a rule, however, our concepts of such numbers, and of higher numbers, are not distinct. Indeed, we may not even have confused concepts; a confused concept of a number would not be of much use. Rather, we think by means of surrogate concept. In place of the concept of a number, we have the thought: "a number which is designated by such-and-such a sign or numeral in our decimal system." By means of these surrogate concepts, we make our computations most effectively, just as we often do, with even greater sureness, by using a calculating machine. Leibniz called such substitute concepts "symbolic ideas."[57]

C. UNITY, THINGS AND PARTS OF THINGS
(28 September 1908)[58]

1. Our psychical activities all pertain to things; they have things as their objects. Hence this is true of our judgments and apprehensions; but our judgments and apprehensions have things as their objects in a variety of ways, accepting or affirming them, rejecting or denying them, accepting or affirming them as past or future, and rejecting or denying them as past or future. Moreover they can have things as their objects directly or indirectly – *in recto* or *in obliquo*. Thus, one may think of someone who denies that there is a God; then one has God as an indirect object. Again, one may think of a judgment which predicates *P* of *S* and have an evident insight into its absurdity; one may then see that his insight arises out of the idea that he has of this judgment. In thus thinking of the judgment, he also thinks of *S* and *P in obliquo,* and he is then said to apprehend that an *S* that is a *P* is impossible.

2. Just as mathematicians occasionally treat a subtraction as an addition of a negative quantity, so in ordinary language what is really a negation is often expressed as an affirmation of a negative object. Instead of saying, "I deny God" or "I deny that God exists," one also says, "I believe in the non-existence of God." Instead of saying, "Charles will be king," one says "Charles *is* a future king;" and instead of "*A* is impossible," one says, "There *is* the impossibility of *A*." This mode of expression could mislead one into assuming that impossibility or non-existence of future kings are to be counted among *things*. Or it could mislead one into supposing that there are objects of thought which are not things. Actually, however, non-existence, impossibility, and future kings are *not* things; nor are they objects of our mental activities. Thus, in the cases of negation, the true object is the thing whose non-existence is supposedly affirmed or the king whose impossibility is supposedly affirmed. And in the case of the future king, the true object is the thing which is affirmed in a particular temporal mode. Even a *contemplated man* is not a thing. Thus one may say "There are no centaurs, but there are contemplated centaurs – centaurs which are thought about." Here the linguistic form is misleading once again. The thing which is here affirmed is not a *contemplated centaur,* not a *centaur which is thought about,* but rather *one who is thinking about a centaur.* If we wish to individuate the pseudo-object, *contemplated centaur,* we would do so by identifying the person who is thinking about the centaur, and not by naming the centaur. If you and I were both to think of the centaur Chiron, the contemplated centaur would seem to exist twice – hence as a kind of universal. Similarly, the general *concept* of a horse is individuated, not by noting further details about the horse itself, (say, that it is Bucephalus), but only by specifying who it is who thinks of horse in this general way. And the one who thinks a general concept is not itself a general concept but is an actual individual.

3. If we thus take care not to confuse true objects with what are not true objects, we will see that all things belong to one and the same genus. They are all *things* [*Wesen*] – *entia realia.*

4. Some of these things have parts which are also things, and so they may be viewed as a multiplicity of things. A pair of oxen, for example, is a thing composed of several things.

Some would urge that such a pair cannot be regarded as a single thing. They would say that we are concerned here with that thing which is the one ox and with that thing which is the other ox. They would say that the case is like the case in which one is misled into supposing that a future king is a special type of object: there is a certain way of thinking that is directed upon the one ox and upon the other and the peculiar characteristic of this doubly directed thinking is mistaken

for a third object. To be sure, it would be a strange kind of arithmetic if one were to add the pair of oxen to the two individuals and then to speak of *three* things. This would be misguided just as it would be to say: In as much as an apple can be halved in indefinitely many ways, the questions "How many apples do I have in my hand" may be answered by saying "More than a thousand." The answer would imply that I have more than 500 apples in my hand. But actually when halves are added, each half must have no part in common with any of the other halves. And when we add entitites, none of the addenda may have any part in common with any others. But our pair of oxen does contain the one and the other ox. It is true that every half-apple *is* a real half-apple, no matter in which direction the apple may be cut, but – and this is the point – it is not *wholly* different from a half obtained by cutting the apple in another direction. Similarly, our pair of oxen *is* a single thing, but one that is not *wholly* different from each of the two oxen.

And so what we should say is this. A multiplicity of things yields a thing. But it yields things which in relation to other things turn out to be neither wholly the same nor wholly different; they are *partially* the same. Cantor has shown two apples to a group of mathematicians, contending that in addition to the two apples an infinite number of things were involved. But we see that his paradox has a simple solution.[59]

5. At first thought, one might try to deal with the question in an entirely different way, namely, by denying that a multiplicity of entitities is itself an entity. One could appeal to no less an authority than Aristotle. According to him, two bodies that are separated from one another are not a single entity. But they are *one* potentially, since they could become a single body, and therefore a single entity, by being brought into continuity. Similarly, Aristotle denies that every part of a single continuous coherent body is itself a real entity. Any such part, he says, is merely a potential entity; it *could* become a body by itself and thus a real entity if the unified body of which it is part were broken up. But this view is obviously indefensible. If a given body is brought into contact with another (without changing its place), it undergoes no alteration at all. Why, then should it thereby cease to be a genuine thing?[60]

Again, if a body undergoes no alteration other than the destruction of one of its halves, then the other half would remain unchanged. How could the remaining half become an entity now if it had not been one before? And what is true of halves is also true of halves of halves, and so on, *ad infinitum*. The division never leads to ultimate indivisible units. No body can be dissolved into mere points. Indeed, it could even be shown (Euclid notwithstanding) that the individual points can still be divided into an infinity of parts.*

* Similarly, if the second half of a life were obliterated, the first half would not thereby be altered; and so here, too, one could think of breaking up halves into halves *ad infinitum*.[62]

6. The concept *thing* or *entity* [*Wesen*] is not the same as that of *one*. Whoever thinks *one* is thinking negatively and denying a multiplicity. Whoever characterizes a man as *one* is comparing the man with an object in which more than one man is to be found, and he is denying that the man can be such an object. And so the concept of *one* is different from that of *thing* or *entity*.[61] Nor is the concept of *one* a species of that of thing or entity; we should not suppose that things or entities may be divided into those which are *one* thing and those which are a multiplicity of things. We can distinguish between unity and multiplicity in many ways, and we can do so without thereby changing anything in the things themselves. Thus we can make such a distinction in thought and correctly say that, so long as a distinction has not been made but can be made, there is a multiplicity only in potency and a unity in fact. And this can be said when we have one and the same thing both before and after the distinction. Consequently, if the middle part of a body were destroyed and both ends of it continued to exist apart from one another, one can say that they *were* potentially two, but are not actually two and only potentially one.[63] But it would be absurd to say that in such a case what is real now was not actually real before. The two ends could be distinguished in thought before the destruction of the middle part. And if they were so distinguished, one could then speak of them as two bodies and two actual things. But one who had not made this distinction could correctly conceive the whole as *one* body and *one* thing.

Perhaps our observations have clarified the following point: the question whether or not we are given an actual thing is entirely independent of the question whether we are given a unitary thing or a multiplicity of things. In other words, the demarcation between one actual thing and another does not produce an actual thing; and if we do away with the demarcation, we do not thereby do away with any real thing as such.

7. *Substance and Accidents.* Among the things that have parts, there are certain wholes which are not composed of a multiplicity of parts. Such a whole would seem to be a thing which is such that one of its parts has been enriched but not as a result of the whole acquiring a second part. One example of such an entity is a thinking soul. When it ceases to think it remains the same soul. But when it starts to think again no second thing has been added to that entity which is the soul. What we have there, then, is not like what we have when one stone is laid alongside another or when we double the size of a body. In the latter case, the enlarged body is made up of two things, one of which is the added part and neither of which contains the other. By contrast, the thinking soul contains the soul essentially [*sachlich*], just as the specific difference red contains the concept color conceptually. This fact is readily misunderstood. Thus one has been led to say that the actively thinking thing is *added* to that thing which is the soul. All so-

called abstract terms, it would seem, are rooted in this fiction. But the thinking activity conceived abstractly is just as little a thing as a contemplated man or the future king.

8. Plato was right in assuming that the concept of *thing* is a unitary concept. Aristotle, however, denied the unity of this concept. He was misled by his view of accidents. Accidents, he said, are not things in the same sense as are substances. This view is connected in a certain way with what he had said about unity and multiplicity. Thus he had said that an aggregate of things cannot be regarded as one actual thing, and that parts of bodies are things only potentially. Suppose now he had said that an accident is a thing in the same sense as is a substance free of accidents, and consider this together with his view about the part-whole relation. He would have been required to say that a substance contained in an accident exists only potentially, not actually. But Aristotle could hardly accept this consequence. According to him, the substance of a hearing thing – a person who is hearing – is as much a thing while the hearing is taking place as it if after the hearing has ceased. How, then, could he view the accident as the same as the substance? This would be impossible. Was he then to say that there is a pair of things, only one of which is the substance? In such a case, he could not say that the members of the pair are both things in the same sense, in as much as only one of them can exist by itself, while the other cannot exist or even be conceived without including the substance. And so he arrived at the doctrine that the accident is not so much a thing as "something of a thing." The accident, he said, is called a "thing" only because of its relation to the thing *of* which it is itself a thing; in other words, it is a thing in relation to the substance. Indeed, Aristotle went so far as to say that the sense in which an accident can be said to be a thing is not the strict sense of "thing". Similarly, we do not use "healthy" in its strict sense when we say that food or a walk is healthy because it is conducive to the health of the body, or that a remedy is healthy because it restores the health of the body.[64]

For our part, we will say that both accident and substance are things in the same sense. We can defend our position against Aristotle, for we have shown that a whole which contains a thing as its part, and even a whole composed of many things, is itself a thing, an entity. One may *not* say, however, that the substance and the accident together are a plurality of things.* The substance is a thing and the substance enriched by an accident is again a thing; but the substance enriched by the accident is not a thing that is wholly different from the substance; hence we do not have that kind of addition which yields a plurality.

* This would be like saying that, because one apple is a thing and a second apple is a thing, and because the two apples together are *also* a thing, therefore to have two apples is to have three things. Or it would be like saying that, because an apple can be halved diagonally as well as transversally, it is therefore composed or *four* halves.

9. An individual accident which is an accident of an individual substance cannot become an accident of a wholly different individual substance. If we have two substances, then the accidents, however similar they may be, will be different since the substances that they contain are different.

But what about accidents of accidents? Can one and the same secondary accident belong to several different accidents? A possible example would be a judgment which predicates one concept of another, or perhaps the unification of contemplated characteristics into one composite idea. This unification would seem to be an accident of two accidents; it has for its subject the idea of the one and the idea of the other.[65]

This case would differ from that in which there are accidents of several substances. Several substances taken together would result in a multiplicity [*Vielheit*]. But several accidents of the same substances would be only a manifold [*Vielfältigkeit*] which would be consistent with unity of the substance.[66]

10. Yet one may still wonder whether at least some accidents cannot be simultaneously present in more than one substance. What of cases involving action and passion and relations generally? Thus one says that there is *a* similarity between two things. And at least Aristotle said that an action and a passion are the same: "*A* brings about *B*" and "*B* is brought about by *A*" appear to say the same thing. In such cases, the same accident would be ascribed to two things, though in a different way to each.

11. If we investigate this matter more closely, then so far as cause and effect are concerned, we should consider those cases in which causation is intuitively apprehended. We find these only in the domain of inner experience. An example is the case where we derive a judgment from certain premises. We note that the conclusion is made evident to us, not only *after* the premises, but also *from* the premises. Insofar as we think the premises, we experience ourselves as active; insofar as we apprehended the conclusion *from* the premises, we experience ourselves as passive and acted upon. Obviously, the fact that we have drawn our conclusion from the premises does not itself alter the premises in any way. But when we apprehended the conclusion from the premises, then we are subject to a modification, and this modification is lost when we subsequently remember the conclusion but do not remember the premises or remember how the conclusion was made evident by them. Originally the conclusion was evident and motivated, now it has lost both evidence and motivation. It was because of the evidence and motivation that we experienced the conclusion as caused; if we now say the premises are still exercising an effect we are not actually adding anything. Consequently, the true subject of the accidental determination in question is the person *qua* thinking the conclusion, not the person *qua* thinking the premises, although the accident contains a reference to the premises.

12. On the basis of this inner experience of being caused, we assume by analogy that such causation also occurs in many cases of regular succession wherein there is no such immediate manifestation of causation. This hypothesis may turn out to be highly probable, if not infinitely so. And this will apply to cases where one substance functions as cause another as effect. But we must add that, just as in the cases of inner experience, the accident is in the thing that is being acted upon as such, and not in the thing that is producing the effect. In the numerous cases where an action sets off a reaction, then the active thing is also acted upon, and as such acquires a new accident.[67]

This latter case may differ from the one previously discussed in yet another respect. Thus the same effect can be produced by different causes. For example, the motion of a body may be the same whether the body has been put in motion by this thing or by that thing. In such a case, however different the active bodies may be, the passive body *qua* passive would be exactly the same. It is clear that the reference to cause in this case would not be definite. Inference would provide a similar situation, if it were possible for another person's premises to produce in me the same conclusion that was produced by my own premises. The causation would be generally but not individually the same. Nor would the relation between agent and patient be the same. This explains why Aristotle was unwilling to subsume action and passion under the category of relation – an unwillingness that many philosophers have thought to be unreasonable or foolish.

These brief remarks about action and passion may be sufficient for the present.

13. It remains, however, to add a note on relations in general. We shall find that they present no difficulties if we recall that a plurality of things is to be viewed as a thing. Hence accidents can be accidents of a plurality as such. Some will hold of one part in virtue of one of the substantial parts, and some will hold of another part in virtue of another one of the substantial parts; it is just because of this that they belong to the whole. Thus if one part of an egg is red and another blue, then the attribute multicolored is predicable of the whole.[68] To say that the egg is multicolored and to say that some of its parts differ in color from others is to say one and the same thing. In the case of relations, then, we are dealing with what might be called collective determinations. We are dealing with a plurality of things which are united into one thing, and where a certain determination applies to the whole in virtue of its various parts.[69]

D. FICTIVE PARTS OF THINGS
(4 February 1914)

1. The word *being* [*Seiendes*] has various senses. In its strict and proper sense, it is a name for whatever we understand to be a thing [*Ding*]. Now, whenever we have any thought at all, that is to say, whenever we have something as an object, we think about a thing. The concept of thing, therefore is the most general concept. Whenever we think something in a completely general way, we call that something a thing.

For something to be called a thing, it does not have to *be*. If I correctly say that something is not, then I am naming it and thinking of it. But only things can be named or thought of; only things can be objects of acceptance or rejection, of love or hate. Several things together are also to be called a thing; and every part of an extended thing is also a thing. And just as only things may be said to *be* or not to be, only things may be said in the strict sense to *have been* or not to have been, and only things may be said in the strict sense to be such that they they *will be* or will not be. All this is implicit in the proposition that only things can be objects of thought, judgment and the like.

II. In this sense, then the name *being* [*Seiendes*] is synonymous with *thing* [*Ding*]. This is its strict meaning. But the word being also has several other meanings.

1. We can distinguish, among the things we think, those which *are* from those which are not. The term being is used in a different sense [when it is used to refer to that which *is*]. In this use, it does not express the most general concept of thing; indeed, it is not a concept at all. The city Nineveh may well be called a *thing*, but those who know that it is no longer will not say that it is a *being* in the sense that I am now referring to. Anyone who says that it is a being in this sense is asserting his belief, in the *modus praesens,* that it *is*. In so doing, he is saying that whoever shares his belief is judging correctly and whoever believes the opposite is in error. And so, when the term being is used in this sense, it is strictly not a name.

Nevertheless it often happens that *being* in this sense is used in our language as though it were the name of something. Still other words are used in a similarly way as though they were names. The statements in which they occur will then be wholly meaningless or false unless the verb *to be* is reinterpreted in a corresponding way.[70]

This happens when one says that a contemplated thing exists *as* a contemplated thing.

Also, when one says that there *are* truths and that there *are* untruths.

Again, when one says that there *are* possibilities and that there *are* impossibilities.

(There *is* no truth outside the intellect. And the sense in which one may say that a truth is in the intellect is not the proper sense of "is". What *is* in the proper sense, when one says that a truth is within the intellect, is someone who is judging correctly.)

None of these words refers in the strict sense to an object thought; they are not genuine names. Failure to notice this may be harmless in some respects, but it clears the way for errors which must eventually be corrected.

2. There are other mistakes that arise when words that function in our ordinary language as grammatical names are taken to be names in the logical sense.[71] Apparently some words came to be treated as names because it was assumed, erroneously, that certain *entia rationis* were actually *parts* of things.[72] Thus the parts of a definition are distinguished from one another, and it is sometimes that they are "logical parts" of the things that fall under the definition.[73] Consider a cat, for example. Its feline nature would be said to be a part of this individual animal; a mammalian nature would be a part of the feline nature, a vertebrate nature a part of the mammalian nature, an organic nature a part of the animal nature, a corporeal nature a part of the organic nature, a substantial nature a part of the corporeal nature, and thinghood a part of the substantial nature.

But it is clear that we are not actually concerned here with different *parts* of an individual thing. The individual thing falls under a given general concept, not because the concept holds of some part of the thing, but because it holds of the thing as a whole. And the concept may hold equally well of other individual things which one may think of in an indefinite way. The concept is therefore comparable in a certain way to a word that has many meanings. Several concepts may be associated with the same word, so that we may be uncertain in any given case just which concept is meant. This is why such words are called *homonyms* (words that name the same things); the corresponding concept might be called a *homonoum* and the things named by it, *homonoumena.*

That is all there is to be said, without recourse to fictions, about thinking of general concepts. But the facts have been misinterpreted and one tries to account for them by means of absurd theories about universals. Thus there are those who say that the object of a general concept, insofar as the object is thought in the concept, is a thing in and of itself – a *universal thing* which is contained as a unity in all the individual things that fall under the concept. This was the view of William de Champeaux.[74]

Others, assuming that many individual things correspond to the general concept, were led to suppose that there is a special kind of intermediate thing falling between the absurd universal things and the real individual things. These inter-

mediate things were thought of as individuated, but as individuated by something that was not contained within them. Each was supposed to be a *part* of another individual thing and was thought to be individuated only in virtue of its connection with this thing and its other parts; it would receive its individuation, so to speak, from outside.[75]

Anyone who thinks that an abstractum such as *feline nature* designates something that *is* in the strict sense will fall into error and absurdity. But, as in the other cases mentioned above, this absurd thinking need not always be harmful. Indeed it sometimes enables us to simplify the expression of an argument. But when it does things should finally be set right once again by translating the abstracta back into concreta.

3. There are those who do not imagine special things for *all* universals but restrict such fictive parts to the domain of accidents. They suppose that, if an accident contains a substance as a part, then there is a whole which contains a substantive part and in addition a second, purely accidental part. This additional accidental part is thought to be something which could exist independently of the substance just as the substance can exist independently of its accidents. This second part would then be a thing designated by an abstract term, such as "thinking," "willing"; then the corresponding concrete term, "one who is thinking," "one who is willing," would be reserved for the substance together with the accident. The present fiction differs from the previous one only in this respect: with the fictive part, which is supposed to be designated by the abstract name, concepts of varying degrees of generality are given and these all pertain to one and the same thing.[76] (This is similar to what may be said of the accident *in concreto:* it is one and the same thing if it is thought of under a more general concept or under a less general concept and even if it is thought of as an individual.)[77]

4. There is still a third way in which one is led to classify fictions as substances. If a substance undergoes accidental change, it first underlies one accident and then underlies another accident. But substances, too, are exposed to corruption. Some are thus led to assume that, just as a real substance underlies accidental change, so also something permanent underlies substantial change; this fictive something is then called substantial matter. Some philosophers have conceived this matter as pure possibility, capable of becoming one or another actual substance. These possibilities were then said to *be* in the proper sense, and indeed to be things, which is plainly absurd.[78]

This goes together with the invention of substantal forms. These are analogous to the fictive accidental parts mentioned above and supposed to be present in the substantial subject.[79]

5. Others went even further in concocting such fictions. They assumed that, when an accidental change takes place, then not only is there a substance underlying the change as its subject, but there is also a potential accident which is present in this subject. This potential accident was then supposed to be a part of the actual accident.[80] Thus the abstract accident was supposed to have as a part an accidental form (analogous to the substantial form). These are sheer aberrations, but apparently men are prone to invent such fictions since expressions for them are found in widely differing languages. This fact suggests that in many respects they are harmless. Indeed, when employed in a lengthy chain of reasoning they may be quite harmless, provided that in the end the whole is re-expressed in such a way that the *abstracta* purporting to designate these fictions are replaced by more concrete expressions.

And so we may say that the domain of that which is in the extended sense also includes: accidents, when these are taken in the sense specified above; substantial forms; substantial matter; accidental matter; accidental forms; and the *abstracta* in the sense of predicated universals.

E. THE PART-WHOLE RELATION WITH REFERENCE TO COLLECTIVES, CONTINUA, AND ACCIDENTS
(16 December 1915)

1. The Eleatics denied the existence of wholes with discrete parts, and on this point those who reject universal ideas would have to agree with them. For the Eleatic doctrine implies that there is no such thing as a multiplicity of stones, or of horses, or of any other things. This doctrine is no longer worth serious consideration. Yet there are eminent thinkers who still contend that the notion of a continuum is flawed by contradictions.

2. It is noteworthy that some of these philosophers concede that continua are intuitively apprehended; they deny only that our intuitions of them can correspond to anything real. This view is easily refuted. First of all, what is contradictory cannot be, and therefore what is contradictory cannot be intuited. Everyone understands the expression "A white horse that is red," but no one can intuitively contemplate a white horse that is red. Secondly, even if that which is intuited turns out not to exist, nonetheless the person intuiting it does exist; and if he is intuiting something multipartite, then every part of that thing corresponds to a part of this person *qua* intuiting it. Consequently, whatever intuits a continuum is itself a continuous manifold [*ein kontinuierlich Vielfaches*]. (Aristotle failed to distinguish between a continuous plurality [*kontinuierlich Vielem*] and a continuous manifold [*kontinuierlich Vielfaches*]. This accounts for his semi-materialistic view of the human soul.)[81]

3. But there are others who deny that we can intuit what is continuous. No intuition of the continuous is possible, they argue, because this would require arithmetical division *ad infinitum*. Yet when we ask how the concept of the continuous could be formed *without* recourse to intuition, we find that all attempts to construct it out of discontinuous elements end in failure.[82] Hence, if it were true that we cannot intuit what is continuous, it would also be true that we couldn't conceive of a continuum. And in such a case it would not even be possible to discuss the continuum.

4. According to Aristotle, none of the parts of an actual thing are themselves actual things. They exist only potentially. His saying this is consistent with his doctrine (which was also that of Leibniz) that no actual thing can consist of several actual things. But we have seen that the opposite is true.[83] A unitary continuum can be equally designated as one thing, or as two things, or as any number of things. But the whole continuum cannot be added to the two continua obtained by halving it; that is to say, one cannot speak of *three* continua in such a case. For when we have an addition one of the things that are added may be included in any other of the things that are added.

5. The following question now arises: If any given continuum can be said to involve *any* number of continua, can it also be said to involve an *infinite* number of continua? Or can we say at least that it involves an infinite number of actual things no one of which is itself a continuum?

We cannot conceive a continuum as a discrete infinite plurality, for it may be demonstrated that the latter concept involves a contradiction.[84] But we certainly can conceive a continuum as a continuous multiplicity [*Vielheit*]. Indeed we can conceive it as a continuous multiplicity of boundaries. The boundaries do not exist in and for themselves and therefore no boundary can itself be an actual thing [*ein Reales*]. But boundaries stand in continuous relation with other boundaries and are real to the extent that they truly contribute to the reality of the continuum. This can be illustrated by the angle of the tangent of a circle: when it is multiplied by the continuous multiplicity of the length of one-quarter of the circumference, it is exactly equal to a right angle. (Just as there are unnamed numbers, so there are unnamed continuous multiplicities which stand in precise relations of magnitude to one another.)[85]

6. Can a *part* of a collective [*Kollektiv*] of things, thus a part of a continuum, or at least any finite part of it, be called a "cause" of the continuum? Could we say conversely that the continuum, or any finite part of it, is cause of a boundary that belongs to it? The boundary, after all, cannot exist apart from the continuum to which it belongs.

Here we must guard against merely verbal disputes. Certainly, if any one of the units, making up a given collective, were not to exist the the collective itself would not exist. And the collective is conditioned by the units. Each of these is a *conditio sine qua non* of the collective. But whether they are for that reason to be termed "causes" is a matter of convention. What is certain, is that this sense of the term "cause" is quite different from that in which a painter can be said to be the cause of his painting.[86]

The same may be said of any finite part of a continuum. And every boundary is likewise a *conditio sine qua non* of the whole continuum. The boundary contributes to the existence of the continuum. This case of the boundary differs from that of the part: the boundary is nothing by itself and therefore it cannot exist prior to the continuum; and any finite part of the continuum could exist prior to the continuum. (But a continuum which comes into being by successive additions can begin with a single point. This point then yields the beginning of the continuum and is sufficiently linked to the subsequent formation as being its initial temporal boundary.)[87]

No boundary can exist without being connected with a continuum. Therefore the continuum is also a *conditio sine qua non* of the boundary. But there is no specifiable part, however small, of the continuum, and no point, however near it may be to the boundary, which is such that we may say that it is the existence of *that* part or of *that* point which conditions the boundary. We might express this fact by saying that an indefinitely small part of the continuum is a condition of the boundary. But such a statement would not clarify the matter and it could not itself be understood apart from the account that we have given.

7. Since it cannot be said of any definite continuum that *it* is a condition of the boundary, only a universal can be designated as a condition of the boundary. In other words, what is required is not this or that particular continuum, but any continuum of the approximate kind.

The nature of the boundary is conditioned and determined by the distinctive properties of the continuum. Consider a rectangle which passes by infinitesimal transitions from red to blue.[88] The red line with which it begins would differ in color from the red line with which a uniformly red rectangle would begin. The color of the red line could also be varied by varying the length of the violet rectangle. Again, a point that is at rest cannot be said to be *here* in the same sense as that in which a point that is in motion can be said to be here. And in the latter sense, the nature of the here would also depend upon the speed and direction of the moving point, and in particular upon the circumstance whether these are constant or whether they are varying continuously. It is only by reference to such facts that we can understand the following situation without falling into contradiction: the different points of a radius of a rotating disk would seem to be sub-

ject to a greater or to a smaller continuous multiplicity of spatial determinations; yet they are all subject to the same continuous multiplicity of temporal determinations.[89]

8. Like collectives of discrete things and like continua, *accidents* also exhibit a relation between part and whole. The substance is contained in the accident as its part. One says that it is the subject of the accident and also its *conditio sine qua non*. Whether the substance could also be termed a cause of the accident is a matter of arbitrary stipulation. But the part-whole relation in case of substance and accident is quite different from what it is in the cases just considered. For in the cases of substance and accident one may be more inclined to term the part a *cause* of the whole. The substance may also be designated as *matter*, just as one may use this term for the parts of a continuum or, indeed, for the units which make up a discrete continuum. But there is need to dispute about words. We need only to take note of the fact that we are dealing here with a relation very different from that between an efficient cause and its effect.

Contrary to Aristotle and to the opinion that has prevailed since his time, it can be shown that just as a substance may be the subject of an accident, one accident may also be the subject of another accident. Consider someone to whom something is presented [*eines Vorstellenden*]: this accident, *qua* someone to whom something is presented, will have a substance as its subject; and if now it accepts or acknowledges that which is presented, then this accident may itself be subject of one who is believing. At least this is true in certain cases – provided that the presentation and the acknowledgement are not cases of secondary consciousness.[90]

III. BEING AND INTENSITY

A. INCOMPLETE ENTELECHY AND INTENSITY
(13 March 1907)

I. Aristotle's Doctrine of Incomplete Entelechy

1. One of Aristotle's doctrines that strikes us as especially odd is his conception of the nature of motion. He defines motion as *the realization of that which exists potentially in so far as it exists potentially,* also as an imperfect or incomplete entelechy. But Aristotle acknowledges himself that this definition in terms of the realization of the potential qua potential is difficult to grasp. Yet such a realization, he says, is possible.

Let us try to make this somewhat clearer.[91]

2. To facilitate the task we will permit ourselves the fiction of a material point which exists in itself.[92] If such a point were possible, then like any extended body, it would have to be somewhere, either at rest or in motion.* In either case it would be somewhere throughout the time t of its existence: if at rest, then at the place l; if in motion, somewhere along the path l--m, which would be longer or shorter, depending on the speed with which the point moved. At any moment of the motion it would occupy only one point of the path. Suppose the point were to move over a path twice as long in the same period of time but with uniform motion all the while. Then it would pass twice as many points on the path; and so it is obvious that the time it occupies on each part of the line and at each point would be half as short. Were the path circular, each point on it would be passed twice in the time taken to complete the circle once at half speed. As Aristotle views the occupation of a point, the swifter it is at any given time, the less complete it is, and the less swift the more complete. No extreme limit of incompleteness is conceivable: even the quickest motion can be doubled or tripled, and so on, *ad infinitum*. On the other hand, an upper limit of completeness is reached in the state of rest. This is why Aristotle calls motion an incomplete being-in-place. One might say that motion is localized less determinately than rest. Such a less

* Aristotle himself, when he discusses Zeno's arguments against the reality of motion, expresses the opinion that they can be refuted only if that which is in motion is not a mere point but a body. But we can easily see that he is mistaken about this if we consider what happens in the case of the point of a cone which is moved with its end point forward. This point will describe a line.[93]

implies the posisbility of a more. Since this possibility, according to Aristotle, pertains to the more complete actualization of that which has already been actualized incompletely, he arrives at the view that motion is the actualization of a potentiality qua potentiality.

3. If we understand Aristotle's theory in this way, it is not difficult to see how it may be criticized. Above all, it is clear that his characterization of the nature of motion is not exhaustive. Every motion has not only a certain speed (a characteristic that is to some extent accounted for by the more or less incompleteness of entelechy), but also a certain direction. Consequently one motion differs from another not only with respect to its momentary where, but also in respect to its whence and whither. By contrast, in the case of rest we have nothing to do with any whence or whither – unless we take these terms in an unusually extended sense and characterize the place where a body is as also the one whence and whither it is. Obviously, direction must enter into the definiton of motion.

4. This leads us to think of the spatial determination of a stationary point, as well as that of a moving point as a limit in respect of its temporal existence.[94] In the case of rest, this limit exists within a continuous series of equal spatial determinations; in the case of motion, it exists within a continuous series of infinitesimally varying spatial determinations.

In either case, the successive spatial determinations are causally connected series. That which is at rest remains at its place; that which is in motion changes from place to place – from a thing that is at one place to a thing that is at another place.

The fact that the [spatial] change in the case of motion is always entirely gradual[95] does not preclude the possibility of greater or lesser differences between rest and motion. Although the spatial determinations vary infinitesimally at any given moment, they can vary now more, now less within equal periods of time – it is on this basis that speed is measured. But the extent of their variations is also determined by the direction in which a given body moves from one place to another.

In order for the motion to be constant at a given moment, it is not necessary that it be constant over a certain definite[96] part of the preceding or following series of spatial determinations, it is necessary only that there be *some* indefinitely small part on one side or on the other in which the motion has the same speed and direction it has now. But some such part or other is indispensable for the motion to have the distinctive characteristics it does have at that moment. Similarly, in order to ascertain that something is actually at rest at a given time, all that is required is that the spatial determination, which is now given as a boundary or limit, be the same as a continuous series of spatial determinations over some indefi-

nitely small part of the preceding and subsequent times.

It is clear, then, that in the case of motion we are dealing, not with *degrees of actualization* of a spatial determination, but with the actualization of a determination *of an essentially different kind.*[97] It is not merely that the place of a point is characterized more definitely when it is at rest and less definitely when it is in motion a any given speed; rather, the two characterizations are essentially different, despite their similarities. The nature of a boundary or limit is determined by the nature of the continuum to which it belongs. When we speak of a body in motion, we may say that "it is moving in a certain place." And when we speak of a body at rest, we may say that "it is at rest in a certain place." In the former case, we have not given a complete characterization of the place, for we have not mentioned the whence and the whither. But in the latter case, there is no need to mention the whence and the whither. And so we can say that our characterization of the spatial determination is incomplete in the case of the body in motion, and complete in the case of the body at rest. Thus, the expression "something is moving here" gives the spatial determination less completely than does "something is at rest here."[98] In the case of motion a more precise specification would include a multiplicity of other spatial differences, but in the case of rest it is enough to say that something is here at rest. In the case of the thing at rest a single spatial determination is enough; in the case of the thing in motion we need a multiplicity of determinations. One could say, if one wished, that this multiplicity is more energetically realized, but one must not suppose that there is a difference in the degree of reality.* The body at rest completely makes up for this lack of multiplicity.[99] According to mechanics, the processes of motion within a given system follow exactly the same course relatively to one another whether the central point is at rest or moving along a straight path.

5. When a homogeneous mass fills a space continuously, its parts, like the part of a blue surface, are all the same in quality, but differ from each other spatially. In respect of place, there are infinitesimal differences; every specific difference [i.e., every *absolute* spatial kind] exists only as a punctiform limit, and its nature is determined in part by that which is limited. This is why the spatial nature of a point differs according to whether it serves as a limit in all or only in some directions. Thus, a point located inside a physical thing serves as a limit in all directions, but a point on a surface or an edge or a vertex serves as a limit only in some directions. And the point in a vertex will differ in accordance with the directions of the edges that meet at the vertex. Thus coinciding points may yet be said to differ with respect to their spatial nature, with the result that it will not be absurd to say that one of them is blue and the other red. (Similarly it is not absurd to say

* [Reading *"Wirklichkeit"* for *"Energie."* R.M.C.]

that there is something which now begins or ends, or that instead of it another thing had existed previously or now begins to exist. But it is absurd to say that the thing both exists and does not exist at the same point of time.) I call these specific differences distinctions of *plerosis*. Like any manifold variation, plerosis admits of a more and a less. The plerosis of the center of a cone is more complete than that of a point on its surface; the plerosis of a point on its surface is more complete than that of a point on its edge, or that of its vertex. Even the plerosis of the vertex is the more complete the less the cone is pointed.[100]

As noted earlier, the species of place characterizing a body at rest – even though it is not distinguished from the preceding and following species with which it forms a causal series – exists only as a limit or boundary. And yet Aristotle did not define it as the realization of that which exists potentially *qua* existing potentially. It was too obvious that what we have in the case of a boundary or limit is not a lower degree of reality but a special type of reality – a type of reality wherein every specific determination can be considered only in relation to a plurality of other specific determinations.[101] An extended blue thing is just as actual with respect to space as it is with respect to blue, even though it does not vary with respect to specific color the way it varies with respect to space.[102] But the distinctions of plerosis pertain strictly to parts, and so far as these are concerned, the quantum of blue in a given point increases or decreases to exactly the same extent as does the quantum of its spatial nature.[103]

6. We should also note this distinction. The spatial nature of a thing may vary now more, and now less, with respect to time; but it varies always uniformly in respect of space.[104] When we compare the spatial boundaries of extended things, thus lines and surfaces, we can speak of more or less gradual and even of sudden finite changes of direction, and we can speak of a greater or a less degree. Had Aristotle perceived this matter, he would certainly have had no occasion for speaking of the reality of that which is potential *qua* potential or of incomplete degrees of reality. The direction of a curve which varies continously is not less actual than the constant direction of a straight line. Nor is the direction of a sharply curved line any less actual than that of a line whose curve is less extreme. It is quite obvious that the direction of a curved line is not less real than that of a line that is straight. It simply has a different direction or, if one prefers, a different form. (If the term "direction" were reserved for the straight line, then we would have to say that the changes in the form of the line may indefinitely approximate its direction. Then we could speak of a greater or less approximation. What we would have is similar to what we found in the case of motion and rest.[105])

II. The Traditional Conception of Intensity and the Aristotelian Definition of Motion

7. What Aristotle says about motion strikingly resembles what is usually said to be a relatively incomplete intensity.[106] A note played softly could be played more loudly; then, it is believed, it would have the same reality but in a more complete way. The soft note is real; nevertheless it exists in potency to the extent that it can become more completely real.

The two conceptions nevertheless differ in two respects. (1) At least some theorists maintain[107] that a maximum intensity is unthinkable, for any intensity is such that it can be conceived as even greater. Thus intensity, on this view, would have no upper limit of completeness, whereas Aristotle's incomplete *entelechy* has no lower limit. By contrast, in our example of a note, the lower limit of completeness would be reached with absolute silence.

(2) We have said Aristotle's complete or incomplete entelechy is a limit; that is to say, it is not something that exists for itself. But the intensity of a given sound or smell or the like would exist for itself.[108] And according to the traditional conception of intensity one and the same smell would be now more real and now less real.

8. Aristotle himself speaks of a weak sensation (αἴσθησις ἀσθενής) without explaining the nature of greater or less strength. But he nowhere says that intensity like extension is a common sensible (κοινὸν αἰσθητόν). Yet he would have to say this if he had conceived intensity in terms of the doctrine current today.[109] We should also note that, although he speaks of a weak sensation, he nowhere speaks of a thought that is weak (νόησις ἀσθενής). This suggests that according to Aristotle, the thinking of general concepts, unlike sensation and phantasy, is not subject to a greater or lesser strength.

III. Critique of the Traditional Doctrine of Intensity

9. If the Aristotelian doctrine of the incomplete entelechy is untenable, it is obvious that the traditional theory of intensity is even more so.

What was meant by a decrease in reality? Certainly not a loss of parts. If a note were to have parts, one could say that it is more real when more of its parts are actualized, and less real when fewer of its parts are actualized. The individual parts may be unnoticeable because of their smallness, but the whole, when reduced (say) by one half, would lose a considerable portion of its reality. The note would continue to exist with less volume and fullness.

But this is not what the traditional theory says. What it says is that, although there are no gaps, a whole can retain its extension and yet lose some of its reality.

Something is supposed to be lost and yet no part is missing. One would have to assume, then, that the whole itself is missing and has been replaced with another whole, since something after all is there. But those who hold to the usual view insist that the same note is present, not another one. How can this be maintained?

10. Could we perhaps say that the same *general* note is there, but not the same note *in individuo*? Then the case would be similar to what we have when one and the same red is repeated, as when one red spot is placed alongside another red spot. The soft and the loud notes would then be two separate individuals of the same tonal species, and they would be differentiated by some *other* species which would characterize only one of the two notes.[110]

11. If we were to take this course, we would have to say that any decrease or increase in the quality of the note would nonetheless involve corresponding modifications in the other species, and the changes in this other species would yield the decrease and increase that is involved. This would be comparable to the decrease and the increase of color that results when the space it fills expands or contracts. When this space is reduced to nothing, no color is left. Similarly, our note would be reduced to nothing if its intensity were reduced to zero. But the two cases would differ in this respect: when the space increases, the color quality that fills it seems to be multiplied, but there is no such multiplication in the tone quality when there is an increase of intensity. The quality of a given individual note changes, but no second quality of the same kind is added to the first. This would be extremely puzzling, for the idea was that quality is supposed to increase or to decrease to exactly the same extent as the one or the other species of intensity with which it is combined.

12. It is, however, questionable whether any useful purpose is served by complicating matters and speaking of two decreases, one in intensity and the other in quality. For a decrease in intensity seems rather to mean a decrease in quality as such, which is supposed to involve no loss of parts. Yet a change that involves loss of parts would be a specific change, and then the quality would no longer be the same. But this is most emphatically denied by the supporters of the usual doctrine of intensity.*.

* Consider a rectangular surface which begins on one side with a purely red line and ends on the other side with a purely blue line and suppose that the transition from pure blue to pure red is gradual and uniform. Then blue and red and all the intermediate shades of violet will be given in incomplete teleiosis. The shorter the distance between the two sides, the faster the colors will vary and hence the more incomplete the teleiosis. On may be temped to say that in such a case the reality of both the blue and the red sides is incomplete, and that it would be complete if the remainder of the rectangle were

continued page 64

13. The doctrine, then, seems to come to this: one postulates that, in addition to quality in the usual sense, there is a second kind of quality which consists in a quantity of the first quality, yet would exhibit no multiplicity of qualitative differences. This is as absurd as it would be to postulate, in addition to place, a quantum of places, which would itself be a spatial quantum without exhibiting spatial differences. In the latter case spatial extension would be postulated as a property to be *added* to the spatial determinations of things and as something which could vary independently of the thing's spatial nature.

Place can change while extension remains the same, but not conversely. And it may be that quality can change, while intensity remains the same. But if intensity is the degree of quality as such, as extension is the degree of place, then intensity cannot change while quality remains the same.

14. Let us now consider the matter from yet another point of view. The term healthy is used in its strict and proper sense when it is applied to the body, and in an extended sense when it is applied to a food which is said to be healthy because it is conducive to the body's health. So, too, the term magnitude is used in the strict and proper sense when it is applied, for example, to a given space, and in an extended sense when it is applied to a given velocity which is said to have a magnitude in virtue of the magnitude of a space that is transversed. (Even the magnitude of a distance between things is called a magnitude only in an extended sense.) If intensity is a magnitude, either it is one in the strict and proper or it is one in an extended sense. It is not difficult to see that, if intensity were a more or less complete entelechy, then it would be a magnitude only in the extended sense. If one entelechy is said to be twice as large as another, it cannot be said to have the size of two smaller entelechies. Evidently the magnitude of the larger entelechy is supposed to be a function of its distance from non-being. Depending upon the degree of intensity, the same quality present in the same extension is said to be now more, and now less distant from non-being. In other words, the gradual

continued from page 63

uniformly blue or red. But anyone who examines the matter more closely will find that in the two cases the line he calls blue is specifically different. As we have said, the nature of any boundary is determined by the nature of that which it bounds. Consider the surface exhibiting a change in color. The specific color of its outer edge exists with as much actuality as does that of the outer edge of the blue surface which is uniform in color. But because of the nature of the things which are boundaries, the two edges are not entirely similar. What we should say here, therefore, is essentially like what we have said about temporal persistence and change in our discussion of the Aristotelian definition of motion. And so here, too, there would be nothing that could be regarded as analogous to what we have been considering [in connection with the usual doctrine of intensity]. A quality which remains the same specifically could decrease only by the loss of parts that take up space. But the case we are considering is supposed to involve no loss of parts; therefore it is dissimilar in the most essential respect.[111]

transition from non-being to a given degree of intensity is one that traverses over a longer or a shorter path. But these paths would not differ with respect to parts; there would just be the transition from one specific intensity to another, where one would be nearer to non-being than the other.[112] (Is this what Meinong thinks?)[113]

15. What is this supposed to mean? We cannot say of anything at all that there is an interval between its being and its non-being. This is true of the highest as well as the lowest creature. A whole divisible into parts can lose one part after another. But this cannot happen in the case of an indivisible whole: once it has ceased to be, nothing at all is left. A mean between being and non-being would be something which neither is nor isn't, which is absurd.

16. In particular, it would be absurd to maintain that the being of one thing consists in this kind of mean between the being and non-being of another thing, unless the second thing consisted of two parts, one of which continued to exist after the other had ceased to exist.

If the being of a thing were said, *per absurdum*, to consist in a mean between the being and non-being of some other thing, one would only be consistent in applying the doctrine to all kinds of things. Just as the being of one intensity could be said to be a mean between the being and non-being of another intensity, the being of one piece of wood might be said to be a mean between the being and non-being of another piece of wood, and the being of one hydrogen atom might be said to be a mean between the being and non-being of another hydrogen atom; and so on.

17. What if one refused to go that far, but said that this peculiar property is restricted to intensity? In such a case what one would be saying would come to little more than this: the concept of intensity is identical with that of existence, and things are compounded of existence and essence, each of which varies independently of the other. This is scholastic ontology in the worst sense. Suarez had denounced the doctrine of essence and existence as a monstrous absurdity. But the identification of intensity with existence would be even more absurd. Indeed, on this view, anything whatever could have the same degree of intensity as any other thing: an atom of oxygen could be a billion times more or less intensive than an atom of hydrogen, and – assuming that there are incorporeal as well as corporeal beings – a piece of bacon could be a billion times more intensive than an angel. Or they could also be equally intensive, a fact which would substantially reduce the considerable distance which separates these created things.*

* Although it is generally believed that intensity has only one dimension, it is obvious that its different degrees do not lend themselves to graphic representation as linear magnitudes. Meinong postulates a two-dimensional intensity for degrees of conviction, but so far he is alone in this.

18. Many other bizarre consequences could be shown to follow. Consider, for example, a mental substance that is rapidly diminishing in intensity and suppose it makes the evident judgment that two and two are four. According to Meinong, such a judgment has an infinitely high degree of intensity, attainable only in exceptional cases. I am sure that the reader can readily provide still other examples – if he cares to – of the kind of absurdities that follow upon this basic confusion. What I said here is sufficient to prove that the traditional theory of intensity, though it has enjoyed general acceptance, is no longer worth serious consideration.

19. *Addendum I.* The doctrine of degrees of existence cannot be salvaged by interpreting "that which is closer to non-being" as "that which is less noticable or perceptible." This view would imply that every degree of intensity is more perceptible than the one preceding it, and that a series of just noticable differences could be distinguished between very high and very low intensities. Thus there would be a path for the transitions from one degree of intensity to another setting out from non-being, and these transitions could be now longer, now shorter; then, depending upon the length of transition, a given degree of intensity could be said to be higher than another, and would thus yield a more complete actualization of quality.

But why should a quality be less noticable or perceptible when it has not been altered as a quality, and when the number of its parts has remained constant and thus cannot be subject to a more or less? Why should a quality be more or less distant from non-being when it is the same and exhibits the same number of parts? This seems simply inconceivable.[115]

20. *Addendum II.* The traditional doctrine of intensity must provide for the possibility of there being an increase or decrease in mass in a given place without any empty places being involved in the process. It would have to say that a body could continuously fill one and the same place and yet *exist* now more and now less intensively. Lord Kelvin would certainly protest against such a distortion of physical theory, but the energists might be happy with the idea that underlies it. Compression might then be said to consist in this: a given mass is made less extended and more intensive without there being any loss of weight. Since intensity could be increased *ad infinitum*, it would be possible, at least in theory, to increase the intensity of a given mass to any desired degree by compressing it, and to increase it even to an infinite degree by compressing it into a single point. The infinite intensity that would result from thus compressing a kilogram would be a thousand times greater than the infinite intensity that would result from compressing a single gram of matter. If three equal masses were compressed, the first into a surface, the second into a line, and the third into a point, the infinite inten-

sity of the first would be infinitely surpassed by that of the second, and this in turn by the infinite intensity of the third.[116]

IV. The Connection between the Theory of Intensity and the Theory of Multiple Qualities

21. Once we have rejected the usual doctrine of intensity, we can hardly accept the traditional theory of multiple qualities. This is the theory according to which these qualities are not really multiple but are simple qualities that are merely intermediate between other simple qualities. The two theories are intimately connected. Thus the red component of violet seems to be more or less intensive depending upon whether the violet is closer to red or to blue, while the intensity of the blue component seems to vary in the reverse direction. The intensity of violet seems to be compounded from both intensities. This would actually be the case if the visual field were phenomenally filled with imperceptibly small red particles alternating with blue ones.[117]

Can there be a simple color situated midway between red and blue? For us at any rate, this color would be indistinguishable from the appearance occasioned by a mixture of imperceptibly small red and blue particles, just as this appearance would be indistinguishable from one produced by a mixture of still finer particles (after all, we can imagine the particles as fine as we please). The simple intermediate color would be the limit of such a refining process, just as a circle may be viewed as the limit of the sequences of regular polygons having more and more sides.[118]

22. We would have to say something similar with respect to the thought that there is a simple color which is the analogue of a trichromatic (or tetrachromatic) color. This simple color could be thought of as being separated from three (or four) colors at corners. The relative distance of the simple color from the corner colors would correspond exactly to the intensities of the corner colors. And then these would be an analogue for the resultant intensity of the single color.[119] And particular nuance of violet could be present in such a simple color. And analogously for any other multiple color.

The number of simple intermediate colors between two corners could be greater or smaller. This would depend upon whether the distance between a given pair of corners is covered in more time or less, the speed of change* from one color to the other being constant. It is probable, though not certain, that the colors would change from one to another just as rapidly as we notice the difference be-

* If the speed of change from one color to the other is constant, then the change in respect of its teleiosis is the same as its change in respect of time.[120]

tween them. Given this assumption, it would follow that the distance between, say, pure blue and pure red is far greater than that between pure black and pure white.*

23. One might defend the thesis that green is a simple color on the ground that its multiple character has more often been denied than that of the other multiple colors, e.g., violet and orange. He might then consider his supposedly simple green along the lines of the (dubious) hypothesis we have been considering. He would have to concede that his simple green presents itself to us in just the way in which the result of mixing imperceptibly small blue and yellow particles would be presented. And so he would have to assume that green is situated on a straight line between blue and yellow and acknowledge that there are as many possible shades of green as there are intervals between these two colors.

The assumption of this simple green, existing along side of the corresponding mixture of blue and yellow is hardly plausible. It could not be taken seriously by anyone who correctly evalutes the analogy and takes account of all relevant empirical data.[122]

24. If only for physiological reasons, the occurrence of a truly homogeneous violet is highly improbable. Thus, persons color-blind with respect to red are always color-blind with respect to violet and also with respect to orange.[123]

25. On closer examination, the comparison with the circle viewed as the limit of a sequence of regular polygons proves similarly deceptive. The comparison was intended to show that simple analogues corresponding to mixed qualities are plausible. But the regular polygon which indefinitely aproximates the circle as its sides are multiplied is essentially different from the case of violet which results from a mixture of progressively smaller red and blue particles and whose color is thought indefinitely to approximate that of a simple quality. The sides of a polygon differ less and less from the corresponding segments of the circumscribing circle as they grow smaller and smaller; whereas the violet resulting from the mix-

* If one denies that a simple analogue of violet, or gray, or the like, is possible, then one might be led to conclude that red is *not* less distant from blue than black is from white. For one might reason as follows: "If each element is given in the same amount, then one can produce every possible mixture of red and blue and of black and white. In such a case there would be transitions of equal length between pure red and pure blue, on the one hand, and between pure black and pure white on the other. Then the number of just noticable differences would not correspond to the noticed distances between the colors. And analogously for other cases where the similarity between the members of the one pair of extremes is greater than that between the members of the other."

In one case as in the other there would be a certain number of noticable differences. The sum of these noticable differences is the only thing that can be called a magnitude in the strict sense. And it is only by reference to these sums that we can speak, in an extended sense, of the distances as being magnitudes.[121]

tures always exhibits the same qualitative difference from red and from blue. This homogeneous analogue of the qualitatively multiple violet would therefore be like a continuum of points which indefinitely approximate one another but remain separated by finite intervals.*[124]

26. Finally, how is one to account for the fact that on the straight line leading from blue to red there are no other shades of color apart from nuances of violet? Even our opponents admit this fact. On their view, red would be no simpler than any of these shades of violet.

One might be troubled by this objection. "Consider the distance there is between black and red. Now consider this same distance from black in the direction toward white. Why isn't the gray that is to be found there a simple color?" The answer is that we don't need to assume that such a grey would be a simple color. Consider again the distance from black to white. Now consider the same distance, but from black to red. We don't need to assume that, in the latter case, there will be simple colors between red and black.[126]

And so we say that between two simple qualities there can be no third simple quality but only a mixture of the two. The more one investigates the matter, the more plausible this doctrine becomes. According to my conviction at least, the doctrine is securely established.

27. But, whatever its difficulties, the assumption that there is a simple analogue for the multiple qualities is less objectionable then the assumption that there are infinitely refined mixtures of being and non-being, of filled places and absolutely empty places. In speaking of motion and rest, we rejected the view that the reality of one and the same thing could be more or less complete; we spoke instead of the reality of different things, but reality of the same complete-

* The same argument corroborates the new theory of intensity according to which a decrease in intensity is reduced to an increase in the number of unnoticeable small gaps. And thus it speaks against the older doctrine of intensity. And it also speaks against the view that there is a *simple* analogue to what are supposed to be quantitative differences in the being and non-being of a quality. One might conceive such an analogue as the limit reached when the filled and unfilled gaps between the particles have been progressively reduced to dimensionless points. But then the filled spaces would still differ from the unfilled ones as radically as being differs from nonbeing. Then they would be comparable to the red and blue components of violet, not to the progressively smaller sides of the polygon.

Of course it is obvious that there can be no interval between being and non-being. And this means there can be no mean between being and non-being. But the old theory of intensity, as can be shown on closer examination, must assert the opposite. Indeed, if intensity could be increased *ad infinitum* (as is currently assumed), then every step would be the analogue of violet as a mean between red and blue. There would be a mean between non-being and an infinitely high degree of being; this would be the analogue of a mixture of imperceptibly small particles of being and non-being. The differences between the degrees of intensity of such particles would be the greatest conceivable, far greater than the difference between red and blue or between black and white.[125]

ness. But when one speaks of a mixture of something and nothing, one pressupposes something corresponding to the Aristotelian doctrine of a more or less complete reality of one and the same thing. But there can be no mean between being and non-being (unless we speak this way when only parts of a whole exist).[127]

28. If there were genuine intermediate qualities, then there could be genuine qualitative transitions in time and in space. But in fact such transitions are only apparent.[128] Variations in the speed of motion may be correlated with spatial changes. And similarly for changes in direction. Thus the width of the angle between tangents at two successive points of a curve will vary the more rapidly, the sharper the curve, i.e., the greater the change of its direction. Consider now the appearance of a double quality, one composed of blue and red. We could say that in an upright rectangle composed of two triangles, one blue and one red, the relative proportions of blue and red seem to vary more or less rapidly according to whether the verticle or the horizontal sides of the rectangle are longer. One could assume analogously that there is a gradual and continuous change of multiple qualities, now more quickly and now more slowly, and similarly for the intensity of the appearance. This accords with our conception of multiple quality and intensity. But the inexactness of our powers of discrimination do not enable us to verify it by observation.

The correct conception of intensity and of multiple quality shows that they are similar, not to teleiosis, but to plerosis.[129]

B. INTENSITY OF MASS, ELASTICITY, AND IMPENETRABILITY[130]

(25 January 1914)

1. Natural philosophers have been unclear about what is involved in the collision of elastic bodies. They often fail to recognize that even the ultimate corpuscles of matter, which have no empty interstices, must be thought of as being elastic and indeed in the most complete degree. This means that compression, in the strictest sense of the term, should be possible. Compression in the strict sense of the term is not a matter simply of something yielding on one side and resulting in expansion on another side. Compression on all sides simultaneously must be conceivable. But a corpuscle so compressed would have the same mass it had prior to compression. This means that the mass of a body is not just a function of the amount of space that the body takes up. Hence we could think of a body whose mass increases while its extension remains the same. And this leads to the concept of an *intensity* of mass. But this intensity of mass is not a magnitude in the strict sense, but can be called a magnitude only because of its re-

lation to what *is* a magnitude in the strict sense. (Just as God is said to be great because he is capable of accomplishing what is great.) In a collision, for example, the mass that is less extensive but more intensive proves equivalent to one that is more extensive but less intensive.

What we have here is a case of specific tranformation which is not merely a change of place.[131] The new type of thing that results from the transformation has a tendency to change back. This tendency is manifested when an extended elastic body returns to its previous size and shape. The process of compression or forcible expansion is a continuous, infinitesimally differentiated passive undergoing. But in the process of returning to its original shape the body exhibits an activity which affects not only its own parts but also those of others. This is why when two perfectly elastic bodies of the same mass collide, the ensuing motions in opposite directions are equally due to the elasticity of each. If a perfectly inelastic body collided with a perfectly elastic body of equal mass, each would recoil at half its original velocity.

2. What I have said here about the contraction of bodies which completely fill a given space suggests a certain analogy with the acceleration of motion and time. But the contraction of a body in space involves a kind of increase in intensity, which compensates for the decrease in extension and can be different in different directions. Accelerated motion on the other hand, has no more reality than does rest. (It would be absurd, of course, to assume that the entire mass of a body can be compressed into a single point. No point can exist on its own; hence the possibility of such compression would imply that the most intensive mass is attributed to that which is nothing at all!)

3. My purpose here is not at all that of restricting the principle of impenetrability.[132] That two bodies cannot at the same time occupy the same space is one of the most firmly established laws of nature. But in our time doubts have been raised as to whether mathematical axioms are directly evident a priori or are simply based upon experience.[133] And so, not surprisingly, similar doubts have been expressed with reference to the principle of impenetrability. For my part I hold this principle and the mathematical axioms to be evident *a priori*. In each case what is evident is a negative universal proposition. (A positive affirmation, to the effect that there is a body that is impenetrable, is not evident, *a priori*; it could be justifed only on the assumption that bodies actually exist.)

4. The principle of impenetrability is not something we have learned on the basis of induction. The following should make this fact clear. Experience provides us with ever so many phenomena which suggest that one body *can* be penetrated by another – if such penetration were not simply inconceivable. Con-

sider, for example, the phenomena of absorption, compression, and penetration (as when quicksilver under strong pressure penetrates wood). Or consider our experience with physical things which the naked eye does not perceive as porous; this, too, could suggest the possibility of impenetrability.

5. But there is another familar phenomena that provides a more significant confirmation of what I have said. I refer to fusion of qualities. An example would be a mixture of red and blue which is perceived as violet. Green is so perfect a blend of blue and yellow that to this day many psychologists deny that it is a compound of two elements. Qualities perceived by other senses may similarly be fused. This occurs if the qualities are so close to one another that the difference between the places they fill cannot be noticed. Experience shows that in such cases the qualities are always fused, even if there is a very great difference between them.

This experience offers a striking contrast to what occurs when the distance between places *is* perceived. Here there is no possibility of fusion even when the qualities filling the spaces differ only slightly or are identical. We fuse *qualities*, however different they may be, when we cannot distinguish which ones are in which places; but we never confound *places,* however close they may be, when the qualities that fill them are of the same species and indistinguishable from each other. Why should this be? It is especially perplexing when we consider that the determination of place and the determination of quality are so closely associated with each other that each is individuated by the other.[134]

There is only one possible answer to our question and this answer is based upon the priciple of impenetrability. Two different things cannot fill the same place. Because they are so close to each other, the places filled by blue and by red are not distinguished from each other; we assume we have only *one* place before us; and we conclude that this place is filled, not by two qualities, blue and red, but by a single quality which reminds us of both and which we call violet. Two bodies cannot be specifically the same in respect of place, but they can be specifically the same in respect of color. Hence the closest possible similarity between two qualities will never lead us to assume that instead of there being two places there is only a single place which reminds us of both.

6. Petronievics has attempted to account for mixed qualities and difference in intensity by assuming that one and the same place *can* be filled by several different qualities.[135] He rejects my hypothesis according to which the fusion of qualities results from the fact that the places they occupy are so close to one another as to be indistinguishable. He thinks that his hypothesis does not explain the phenomenon of fusion. Actually, however, the phenomenon would be inexplicable on Petronievics' own hypothesis (even if that hypothesis were not

impossible *a priori*). If different qualities could fill the same place, then the simultaneous filling of one and the same place with several different qualities would be no more likely to result in fusion than would one and the same quality filling several different places.[136]

C. INTENSITY OF EFFECT
(18 March 1914)

1. We have shown that the terms more and less, when they are used to characterize a quale, for example, a sound, can be used only in virtue of a relation to a greater or lesser extensive quantity. Thus the so-called increase in intensity of one and the same quale is reducible to an increase in an increase in an extensive magnitude: sensible space is filled more densely. When it was not known that differences in intensity are reducible to differences of density, it was thought they are like differences of *weight*.

But here, too, one can properly apply the terms more and less only with reference to something that has parts. In the case of weight, this something is obviously the effect produced by a body of a certain volume on a scale. Consider a small gold piece counterbalancing a disproportionately large piece of some lighter metal. If the lighter piece of metal is ten times larger then the piece of gold, then the weight of the gold will seem ten times more intensive.

It is not inconceivable *a priori* that bodies of equal size should produce unequal effects as a result of their different constitutions. (It is *a priori* that if they have equal size and unequal weights then they are different in constitution.) Similarly, it is not inconceivable *a priori* that one might ascribe different intensities to different sense-qualities merely by reference to the magnitude of their effects.[137] Here we would have differences of intensities which are not themselves the effects of differences in extensive magnitudes. But the earlier doctrine of intensity cannot avail itself of this possibility. According to it, the intensity of a quality can increase and decrease while the quality itself remains the same. It is supposed to be possible, for example, that one and the same note is now soft and now loud.

2. Evidently it is still on open question whether the weight of a bodily substance is reducible merely to the amount of space that the substance fills. It has become customary to believe that there are no essential qualitative differences between such substances.[138] But this has never been demonstrated. And indeed it is highly improbable *a priori* to suppose that all such substances are qualitively the same.[139] But if they may differ qualitatively, then it is possible for quantities which are the same in respect to extension to differ with respect to the

way in which they restrict displacement and therefore to differ in weight. Then it would be possible to suppose that, when a certain qualitative transformation occurs, there would be an increase or decrease in the amount of space that is filled without there being any increase or decrease in energy. If the qualitative change were continuous, then it could be conceived as a sort of compression or expansion, which would be analogus to acceleration and deceleration in the case of motion. And in fact such qualitative changes do seem to occur; otherwise the phenomena of elasticity would be inexplicable. The ultimate corpuscles of matter are not aggregates of parts; consequently, there can be no displacement of *their* parts. They can't be elastic in virtue of any empty interstices. Their elasticity can be accounted for only by assuming that they can become more compact or more diffuse, just as motion can be accelerated or decelerated. There would be the possibility, then, of compressing such corpuscles on all sides simultaneously. A ball, for example, by being so compressed, could be reduced to a ball of half its original diameter. In such a case it would undergo a specific qualitative change, and would exhibit the tendency to return to its former quality and size. It is easy to see that there could be different degrees of expansion in different directions. An example involving color may enable us to see this point more intuitively. Consider a surface which is pure blue at the right and pure red at the left, and which gradually passes from one to the other through all the shades of violet.[140] Of the straight lines that can be distinguished on such a surface, the transition from blue to red will be more rapid along some than along others.[141]

3. What I have here said about such intensification is entirely consistent with what I have said about the intensity of sensible qualities. As long as the quality of red remains the same, its specific brightness and intensity will also remain the same; they will give the impression of becoming weaker only when there has been an admixture of reds of different brightness and intensities. This latter occurs when the number of imperceptible gaps between the particles has been increased. (If any sort of specific difference in intensity is at all conceivable, then it will be analogous to what I have said about mass intensity. In each case, there must be a relation to magnitudes divisible into parts.)

D. KANT'S DOCTRINE OF INTENSITY
(20 April 1916)

1. In his "Refutation of Mendelssohn's Proof of the Persistence of the Soul" (*Critique of Pure Reason*, B. 413 ff.), Kant misses the true weakness of this proof. According to Mendelssohn, it is contradictory to suppose that a simple substance ceases to be, since after the last moment of its existence there can be no

first moment of its nonexistence. Mendelssohn does not note that one could prove the impossibility of breaking up a composite substance in a similar way: after that last moment at which its parts are together there there can be no first moment at which they are separated. Perhaps he reasoned this way: there is no need to speak of a first moment of separation, since separation is continuous and can be thought of as beginning infinitesimally. But if we can speak of a contradiction in the case of a simple substance ceasing to be, so too, in the present case.

Actually, however, there is no contradiction. A temporal point as boundary of a one-dimensional continuum is twofold [*zweiteilig*] in respect of its plerosis.[142] It is logically possible for something to exist up to and at a given point of time and from that same point on *not* to exist. It ceases to be and begins not to be in the same moment. There is no contradiction in supposing a simple substance to be annihilated (though this is ruled out by the general cosmological law according to which God has a purpose for every entity).

Mendelssohn also failed to see that a simple substance can conceivably be transformed into some other thing. Such a transformation can be conceived as sudden, or as gradual, as when a body, without being broken up or altered in shape, is moved from one place to another, and thus undergoes spatial transformation in respect to every point.

(I have chosen here to illustrate gradual change by one in respect of place rather than by one in respect of sensible quality. For one thing, sensible qualities do not truly exist. Moreover the change from one simple quality to another can *only* be sudden. Between any two simple spatial points there are always *other* simple spatial points. But it is not the case that between any two simple qualities there are always other simple qualities. In the case of violet we do seem to have the possibility of a gradual change from blue to red; but violet is a mixture of imperceptibly small blue and red particles. The relative amounts of the two colors can be modified only by transforming the individual parts and points from ɾed to blue and conversely, but this involves for each point a sudden transition from one color to another that is entirely separate. Such a change a comparable to what Aristotle called a specific transformation of one corruptible substance into another; possibly it is like what takes place in those chemical transformations which are supposed to result in a true alteration and not a mere rearrangment of parts. The possibility of such sudden changes cannot be ruled out *a priori*; they are comparable to the sudden emergence of a new thought. When two perfectly rigid bodies collide, then there occurs in one moment a sudden finite change in respect of speed and direction.)

Mendelssohn's argument to prove that the soul cannot be annihilated could also be used to prove that it cannot be created. And so one might argue for the necessity of its eternal pre-existence. But this argument would be equally fallacious.

2. In criticizing Mendelssohn, Kant fails to notice these errors. What he says is rather this: A simple substance is not an extended magnitude which can be broken up; but it is perishable since it is an *intensive* magnitude. He says that an intensive magnitude, like everything that exists, must have a certain *degree* of existence. And now Kant presents an extraordinarily bizarre account of intensity. According to him, intensity is not something simple but, like spatial extension, is divisible into parts, and one can distinguish smaller and smaller parts *ad infinitum*. Every higher part bears a certain quantitative relation to every smaller part. Two parts that are equal in magnitude would differ from the smaller ones only in the number of the latter they contain. However – still according to Kant – it would be perfectly consistent to assume that the smaller parts exist separately, and then the larger parts would exist as simple substance.

3. The absurdity of all this is obvious. A fast motion is not composed of two parts each half as fast as the whole. If a shade of violet is perceived as twice as intense as each of its blue and red components, the explanation is that imperceptibly small portions of the visual field are filled alternately with blue and red. In fairness to Kant, we should note that his errors are partly due to the great confusion that has always marked the doctrine of intensity. Those who have accepted the traditional doctrine have failed to see that we are here concerned with magnitude in an *extended* sense of the term. But if there can be said to be magnitude in an extended sense, this is because of a relation to magnitude in the strict and proper sense – i.e., to magnitude that *is* divisible into equal parts. Thus, the so-called intensity of motion is related to the length of time and to that of the distance that is covered. The intensity of a sensible quality is a function of these magnitudes: those of the spatial parts of the sensefield that are filled by the quality and the amount of space that would be filled if there were no unfilled gaps or empty places between those parts.

Having misconstrued the true nature of intensity, Kant goes on to make a distinction between a thing and its existence. He speaks of compounding simple things with their own existence. He tries to construe these compounds as continua which can be broken up and then brought together again in a unitary existence. If nothing else, the absurdity of Kant's hypotheses show that the traditional doctrine of intensity, despite its widespread acceptance, is very much in need of correction.[143]

Kant says that every thinking thing, like every perception, has a degree of intensity. This must be emphatically denied. A note can be perceived as soft or loud, but a thinking substance cannot be a thinking substance with varying degree of intensity. But here, too, Kant has simply followed the traditional but erroneous doctrine of intensity.

In describing the apprehension of a chord composed of several notes, Kant

says that we can easily recognize the difference when one of the notes is omitted or replaced with another, but that we cannot tell what this difference is. He adds that here our perception of the chord is not completely clear. He confuses clarity with distinctness: if these terms are taken in the sense proposed by Leibniz, distinctness implies clarity not only of the whole but also of the parts.[144]

4. According to the traditional doctrine of intensity, the intensity of motion (i.e., degree of velocity) is a magnitude in the strict sense; and the intensity of a sensible quality is not reduced to the relative proportions of filled and unfilled parts, but is said to be a matter of higher or lower intensity of the quality itself which fills its space completely. I say this doctrine is absurd on two counts.

(1) Although it allows for the distinction between extensive and intensive magnitudes, it assumes that intensive magnitudes are like extensive magnitudes in that they can be thought of as compounded out of two, or three, or indeed indefinitely many equal parts. (We criticized Kant above with respect to this point.)

(2) This doctrine violates the *principium indiscernibilium*. Consider the two or three or however many equally slow motions of which a faster motion is supposed to be composed. How are they to be distinguished from each other? And consider the two or three or however many equally weak qualities of which the stronger one is supposed to be compared. How are *they* to be distinguished from each other? The motions could not be distinguished in respect of direction, speed, place, time, or subject. The weaker qualities could not be distinguished in respect of species, strength, place, time or the like. Kant says that one part subsists in another, and he suggests that this fact gives us what distinguishes and therefore individuates each part. He presupposes, not only that a substance can subsist in an accident and that one accident can subsist in another, but also that the like can subsist in the like. But this will hardly do; indeed it is quite preposterous. Can one subject have two properties exactly alike? Hardly. This, too, would contradict the *principium indiscernibilium*. Moreover, if we suppose that a subject can have two properties exactly alike, what makes one of them primarily predicable of the ultimate subject and the other such that it is once removed from the ultimate subject? There is no way of answering this question. Anyone who has gone this far on the wrong path can go on to assume, without risk of falling into still greater absurdity, that two indistinguishable properties of the same ultimate subject can take turns subsisting in each other. But the concept of subsistence is actually given up in such a case; all that is left is a word divested of its sense.[145]

Needless to say, the matter would not be improved, if instead of speaking of the strength and weakness of quality and of motion, one were to speak of the strength and weakness of the *existence* of quality and of motion.

PART TWO

PRELIMINARY STUDIES FOR THE THEORY OF CATEGORIES

I. ARISTOTLE'S THEORY OF CATEGORIES: INTERPRETATION AND CRITIQUE

A. THE FUNDAMENTAL IDEAS AND THE FUNDAMENTAL ERRORS[146]

1. The theory of categories, one of the most important branches of ontology, is today in a state of great confusion. This fact may be traced back to the unfinished state in which the theory had been left by its founder, Aristotle. Subsequent philosophers felt called upon to improve it, but they were not his intellectual equals, nor were they actually aware of what he was getting at, and so even the valuable elements that Aristotle himself had contributed were lost sight of. Some wanted to find a theory of categories in Plato, to whom such a doctrine was totally alien. Leibniz imagined that he had improved the table of categories by reducing Aristotle's ten predicaments to three – substance, absolute accident, and relation. Plotinus, too, long before Leibniz, wanted to reduce the number and proposed four: substance, inherent accident (that in which the substance is present), motion, and relation. Even in Plotinus's time such an abridged version of the table was no novelty. Aristotle himself had considered classifying all non-relative accidents under one category, but he realized that this would be to evade the very problem his classification was designed to solve.

If the actual intent of the theory of categories has thus been unclear, Kant misunderstood it completely. He was only superficially acquainted with the earlier history of philosophy, and the construction he put upon the Aristotelian table of categories is unthinkable from Aristotle's point of view. For a philosopher who holds that all our concepts are derivable from empirical intuition, there can be no such thing as a category in the Kantian sense. It is precisely the confusion between the Kantian category and the historically original category of Aristotle that accounts for the inability of our moderns to accomplish anything in this field of study.

2. To understand the problem we should go back to Plato. Having noted that one and the same individual thing may underlie attributes of various degrees of generality, Plato concluded that each attribute taken in its highest degree of generality leads to the concept of a *being* in the widest sense of the word and that this concept is the same in each case. Accordingly, ascending in any series whatever would lead to one and the same highest predicate. It was the correctness of this doctrine that Aristotle challenged. To be sure, he recognized that, just as

different individuals could fall under the same species, and different species under the same genus, different generic concepts could fall under the same highest genus. But Aristotle denied that by ascending the series of a thing's specific attributes one always reaches the same most general concept. In his opinion, if we view an individual thing as subject of any given attribute taken at its highest degree of generality, and then apply the term *being* to the thing, we will be using the term in several different senses. One of these senses is the strict one, the others are extended. He illustrates this distinction by reference to the term "healthy": in its primary and strict sense it refers to the healthy body; and in an extended sense it refers to a food, a medicine, a region, a complexion, and to still other things, each of which is termed healthy because of a relation that it bears to the health of the body. Similarly, the term *being* is used now strictly, now unstrictly. It is used strictly, when, for example, I say of a body that it *is*. It is used unstrictly, when I say of one of its properties – say, large, round, twice-as-large, present here, present now – that *it* is. Strictly, we should not say that *a large thing* is, or that *a round thing* is, or that *an occupier of the market place* is. To express ourselves strictly, we should say that a thing is large, a thing is round, a thing is in the market place. When we say that *a large thing* is, we are dealing with something that is said to *be* because it belongs to something that *is* in the proper sense; and similarly for the other cases. It would be better to speak of something that is *of* a thing (ὄντος τι) than to speak of a thing (ὄν).

Both a climate and a complexion are termed healthy by reason of their relation to the body's health; but this relation is not the same in the two cases, and so the term healthy is not used in the same sense with reference to both. According to Aristotle, we have a similar situation in the case of the attributes of a thing that can be said to *be* in the strict sense. The attributes can be said to be only in an extended sense. They belong to their subjects in different ways, and the sense of the *is* varies accordingly, depending upon the attribute to which it is applied. That which is strictly said to *be*, Aristotle calls οὐσία (essence or substance); and that which is only in an extended sense said to *be*, he calls συμβεβηκότα (accidents). The task of the theory of categories is to ascertain all the classes of accidents and the distinctive properties of each class.

3. According to Aristotle, a substance together with its accidents forms a certain whole. The whole would seem to be such that substance is the first part, after which come quality, quantity, and the other accidents. (*Metaph. XII, in init.*) And so, in order to understand and evaluate his theory, it is first of all necessary to consider his general conception of the relation of whole and part.

He is quite convinced that whole and part can never be actual simultaneously. If the whole is actual, then the part is merely potential. Let us see how this applies to a thing extended in space. Such a thing is divisible *ad infinitum*, and so

infinitely many bodies are there potentially, but in actuality there will always be either one real body or a finite plurality of bodies. In the latter case, the smaller bodies into which the plurality could be further broken up exist only potentially; but so, too, does the single unitary body in which they could be combined. The single body exists only potentially if the many bodies have not been transformed into a single unitary whole. Accordingly, a thing ceases to exist in actuality once one of its parts is removed.

Now, Aristotle believes that a thinking substance, when it ceases to think, remains the actual real thing that it was. For this reason he cannot conceive of the substance with the accident as a real thing, for then it would be a real thing both before it begins to think and after it has ceased to think, but not while it is thinking. In Aristotle's opinion, when the substance thinks it is not two real things, but *one* real thing. The one real thing is linked with something that exists in an extended sense, and that cannot exist at all without containing the substance.[147]

4. We may also say that conceptually, the accident necessarily contains the substance. The substance cannot be omitted in the definition of the accident. But all the other attributes entering into its definition belong to a *single* genus and in such a way that they form a series of the following sort: from the highest step down to the lowest species, each successive difference includes the generic attribute and all preceding differentiae. This seems to Aristotle to be required for the real unity of the accident. Thus the concept red contains the concept colored, and the concept colored contains the concept sensibly qualitative. The relation between the determination red and colored in *red-colored thing* thus differs from the relation between horse and being-here in *horse-which-is-here*. The horse-which-is-here can cease to be as horse-which-is-here and yet remain the same individual horse. But, the red-colored thing cannot cease to be red and remain the same individual colored thing: for if it became blue it would not even be the same in species.

What is true of the definition of accidents, should also be true of the definition of substances. Beginning with the most general concept of substance and descending to the lowest relevant specific concept, the series will be such that the last difference contains the highest generic concept as well as all preceding differences. Any crossing or overlapping of the defining marks is thus plainly ruled out.[148]

What is in question, however, is not a plurality of individual parts; rather all attributes entering into the definition determine one and the same individual, but do so more or less completely. It would be a mistake to say, of the more general attributes, that they are parts which are actual if and only if the whole is not actual. Rather, if one determination is actual, then all are actual since they are all identical with each other.[149]

5. It is the substance, however, that individuates the accident. Two men who perform the same intellectual act are different individually because two different minds perform it. Since both minds as such have the power to perform the act, the act appears to be individuated by the individual nature of that which is potentially a thinker – i.e., that which is capable of thinking. This leads Aristotle to say even of substantial concepts that their individuation in any ultimate specific case is a result of a certain substantial potentiality. This potentiality underlies substantial change as a capacity for coming into being and passing away. When one fire transforms two pieces of wood into fire, the resulting fire is not individually the same as the fire which produced it, nor are the two pieces of wood transformed into one and the same individual fire. Rather, they are transformed into two fires because of the individual difference of the two capacities for being transformed into fire. The individual fire produced by one piece of wood could not have been produced by the other, although as fires they can be specifically the same.[150]

6. We should emphasize another peculiarity of Aristotle's theory of categories: according to it one accident cannot be related to another in the way in which a substance is related to an accident.

Moreover, Aristotle always assigns concrete and abstract terms to the same category; an example is *the red* and *redness*. He also assigns the actual and the potential (the potentiality for that actuality) to the same category; an example is *the one who thinks* and *the one who is capable of thinking*. Again, he assigns the privation of a given actuality to the same category as that actuality itself. That which is seeing belongs to the same category as that which is blind, and that which is thinking to the same category as that which – say, when it is sleeping – is not exercising its faculty of thinking.

7. At the root of this theory of categories is a theory of the relation of whole and part; and this latter theory, in my opinion, is erroneous. It is not at all self-evident that the part can never be actual if the whole is actual. Otherwise there could be no such thing as a spatial continuum. Leibniz had held this theory of wholes and parts and was led to maintain that a continuum cannot be a real thing, but only a confusedly perceived infinite plurality of reals. According to him, none of these can be continguous to any other. This is as absurd as the assertion of an infinite multiplicity of things.[151] Aristotle avoids the latter absurdity, but his conception of the relation of whole and part leads to an equally unacceptable consequence. Consider a homogeneous thing, say one extending in every dimension over millions of miles; suppose now that a tiny particle is removed from this thing; according to Aristotle's doctrine the entire thing to its remotest boundaries would then undergo a sudden substantial change. But in

fact, of course, the more distant parts would surely remain unchanged – just as the earlier parts of a motion would remain unchanged if the motion instead of continuing had been interrupted.

This comparison suggests the correct way to look at the matter. When a body moves uniformly from *A* through *B*, *C*, and *D*, to *E*, we can view its motion as one whole or as four motions. Or we could view it equally well as four hundred or four thousand or any other number of motions. Consider now any one of the parts of this motion: it is wholly indifferent to the being of this part whether or not some other part follows it or precedes it. But the motion can not be viewed as an infinitely large number of infinitely small motions. The same applies to a homogeneous body extending uniformly in every dimension. It can be viewed with equal right as four bodies, or four hundred, or four thousand, or any other number. Each of these bodies would remain what it is if the others suddenly ceased to be. But it would be wrong to view the body as an actual infinite multiplicity of dimensionless entities comparable to Leibniz's monads.

8. Aristotle felt that the whole formed by a substance together with an accident cannot be a real unitary thing. For a substance may lose an accident and continue as such to exist unchanged. But if what we have been saying is correct, then his reasoning is not valid. There is no doubt that the substance combined with its inherent accidents must be a single unitary thing: otherwise we could not apprehend, in the same evident act of perception, our substance together with the mental activity we are exercising. If an immediately evident apprehension is assertoric, then the object of the perception can only be identical with the perceiver himself.[152]

The substance together with its accidents is not wholly comparable to the unitary continuum having different actual parts. Every part of the continuum can remain what it actually is when another part is removed or transformed. But in the case of substance and accident this relative independence is only one-sided. The substance remains the same when the accidents change, but the converse is not true. The accidents exhibit such independence only in their relations to each other. An example would be a hearing together with a smelling. One of these can cease to be while the other remains.

In the case of its homogeneous exended substance, each part as well as the whole may be correctly called an actual thing. In the case of accidents, the accidentally enriched substance as well as the substance taken by itself may correctly be called an actual thing. But there is no actual thing which would remain if the substance were taken from the accidentally enriched substance. We cannot even separate the concept of the accident from that of the substance which underlies it. But the concept of accident contains the concept of the substance only in undetermined generality and not in its ultimate specificity or

individuation. One should not conclude, however, that therefore the substance can individually or even specifically change while the accident remains individually the same.

9. The concept of being in the sense of substance is included in the concept of the accident as well as in the substantial definition. Hence if the accident is an actual thing at all, then it is an actual thing in the same sense that the substance is. It is even individually the same entity, in the strict sense, as is the substance by itself alone; it is that thing only with a certain enrichment of determinations.[153]

10. The Aristotelian theory of categories is defective in still other respects. According to it, for example, no accident can underlie another accident in the same sense in which a substance underlies its accidents. On this point even Thomas Aquinas deviated from the Philosophers's doctrine. Defending the dogma of the Eucharist, he argued that certain accidents can be subjects of other accidents. Unfortunately he confused substantial and accidental determination; he assumed that place presupposes magnitude, whereas the opposite would seem to be the case. A real example of one accident that is the subject of another accident is a presentation that is subject of a judgment or of an act of love. It also seems that the evidence of a judgment can disappear while the judgment itself persists. Indeed, it is the cases where one accident underlies another that serve best to clarify the relation of underlying. Once this has been grasped, the necessity of a first *suppositum* can easily be demonstrated, and this first *suppositum* is the substance.

11. We may note further, in opposition to the view of Aristotle, the external perception presents qualification and localization and everything connected therewith as substantial differences and not as accidental differences. All our ideas of absolute accidents are taken from the psychical domain.[154]

12. Finally, Aristotle was mistaken in thinking that all the determinations entering into a definition – at least a definition pertaining to substance – must belong only to one series of predication. The difficulties he had with individuation are connected with this error. The phenomena of external perception, when correctly interpreted, make intuitively clear the reciprocal individuation of ultimate specific differences.[155]

The following princinple provides us with the proper method for deciding whether a given entity is a unity or a plurality: if the falling away of a determination would leave the individuality unchanged, then we are dealing with something that is modally [i.e., accidentally] different and not just conceptually different.

B. MEANING OF THE ARISTOTELIAN THEORY OF CATEGORIES: SUBSTANCE AS PRINCIPLE OF INDIVIDUATION

(30 September 1914)

1. The term category was introduced into philosophy by Aristotle. What he meant by it came to be less and less understood over the centuries. This explains why Kant and many others could employ the term in senses entirely different from the original. Neither in Aristotle nor in the nature of things is there anything that corresponds to what these moderns understand by a category, and so we have every reason to ascertain Aristotle's original intention and then to use the term accordingly.

2. What, then, is to be understood by a category in the old sense of the word? As is well known, the subjects and predicates of [the particular] affirmative judgments can be interchanged, the subject now occupying the place of the predicate and the predicate now occupying the place of the subject. But when we are concerned with what is individual and what is general, with what is substantial and what is accidental, then one of these is more naturally the subject and the other more naturally the predicate.

The ultimate natural subject of any predication is an individual substance, but the predicates can be divided into several classes according to the way in which a given predicate is linked with its subject. Thus the general substantial determinations of an individual substance do not belong to the substance in the way that accidents do. And it seemed to Aristotle, that not all absolute accidents belong to the substance in the same way. Therefore he was confronted with the problem of determining the number and characters of the highest classes of predicates – these being *the categories*, in that sense of the term that Aristotle introduced into philosophy. As is well-known, he listed ten classes, namely, substance, quality, quantity, where, when, action, reaction, affection, position, and state, but he may later have excluded the last two, reducing the number to eight.

3. To understand this table of categories, one must realize that according to Aristotle a multiplicity of substances is not itself a substance. This is why there is no room in his table for any predicate whose ultimate subject is a multiplicity of substances. And he did not consider absurd predicates – as in such statements as that a body is warm in virtue of its shape. We should note further that he did not always distinguish correctly between substantial and accidental attributes.[156] Moreover, according to him, a generic concept can be differentiated in only one series; but this is false.[157] Again, he took it for granted, without sufficient investigation, that one accident never underlies another. Still further, there are

certain absolute determinations which we assign to things on the basis of certain *other* absolute determinations which are already known to us and which we take as our measure; but Aristotle, to an extent, confuses the measure with that which is measured. Thus he defines the place of a body in terms of the boundary of a surrounding body; the place of a body is supposed to be the nearest boundary of the surrounding body that is in contact with the given body. And he defines time as the rotation of the heavenly firmament in so far as this yields the measure of earlier and later. This is not much different from defining temperature as a line on the thermometer.[158]

Hence, his doctrine of categories is anything but flawless, and yet its great merit cannot be denied. Indeed, it is precisely because its purpose was subsequently misunderstood that it has not been properly corrected. As a result investigations of the subject today must now begin at the point where Aristotle left it.

4. If many now deny that there are substances or that substances are to be distinguished from accidents, this fact is simply the consequence of a failure to understand the meaning Aristotle associated with the word substance. It is often assumed, for example, that the term substance denotes something that underlies every change without changing itself. This was not what Aristotle had in mind; had it been, he could not have spoken of a divine substance nor of a substantial change in bodies. We readily grasp his actual meaning when we consider the relation which is commonly thought to hold between certain relative and absolute determinations. It is usually assumed that the relative determinations may hold of a thing and then no longer hold of it without the thing itself undergoing the slightest alteration.[159] Socrates ceases to be taller than Phaedo when the latter grows up and becomes taller than Socrates. But the absolute size of Socrates appears to be independent of the relation in size that he bears to Phaedo; and this relative determination on the other hand appears to be dependent on his absolute determination. We get still closer to what Aristotle understood by substance and accident when we consider the following view which prevails today and which was also the view of Aristotle: a thing may undergo certain changes with the result that it loses only some of its determinations while the others remain *individually the same.* Consider what would be generally said about someone who is both hearing and seeing. If this person ceases to see, the one-who-hears [*der Hörende*] remains individually the same; or if the person ceases to hear, the one-who-sees [*der Sehende*] remains individually the same. And one infers that the person would still be the same individual in respect of certain other determinations if he ceased both to hear and to see. But without those other determinations the one-who-sees and the-one-who-hears would no longer be the same individual. Two individuals who hear the same thing are not thereby the

same hearer. Each individual has still another attribute which individuates it and differentiates it from the other. When *A* simultaneously hears and sees something, and *B* sees the same thing but does not hear it, the predicate *hearing* applies correctly to *A* and incorrectly to *B*. The reason is that, in the case of *A* the individuating attribute applies both to the one who is seeing and to the one who is hearing, but in the case of *B* the individuating attribute does not apply to one who is hearing. The relation between these determinations would then seem to be somewhat analogous to that between the absolute and relative determinations in the case discussed above. We found that the relation between the absolute and relative determinations was one-sided: the absolute determinations are independent of the relative determinations. And in the present case the relation between certain absolute determinations is one-sided: some of them are independent of others. Thus we arrive at the following conclusion: there is one part of the predicate which is independent of all the others in its individuality; this part conditions all the others with respect to their individuality; it is an entity, therefore, which underlies [*subsistiere*] the totality of determinations. According to many,[160] a body would remain the same individual body even after being moved to another place; if they are right on this point, then spatial determinations as well as such predicates as motion and rest would be accidental; and that which remains individually the same, in the case of spatial change, would be said to underlie the body and to be its substance.

C. TOWARD A REFORM OF THE ARISTOTELIAN THEORY OF CATEGORIES[161]

1. Like other scientific terms, the term "category" has undergone several changes of meaning in the course of history. Usually such changes are connected with basic changes in theory, as in the case of the polarization of light. Sometimes, however, unfamiliarity with the earlier traditional sense of the term leads to some new use that is completely arbitrary. And the new use may have little or no relation to the original use. It is quite obvious that this has happend in the case of the term "category."

Kant in particular completely distorted the sense of the term. That he was unfamiliar with its original sense is apparent from this fact; he thought that Aristotle's table of categories was intended to serve the same purpose as his own. He assumed that Aristotle was trying to classify the basic concepts of pure reason – something totally alien to Aristotle who ascribes an empirical origin to the categories as well as to all other concepts.

Earlier philosophers did not deviate this far from the original meaning of the word "category," even though Aristotle's table of ten categories (which he

himself lists in full only once or twice[162]) had appeared in abridged form in the Eudemian ethics. Abridged lists are also to be found in the Stoics* and in Plotinus, who made several critical observations about some of the items listed by Aristotle.**

Nevertheless, it is not advisable to rely solely on Aristotle himself if we are to understand the intention behind his classification.

2. This much is certain: he thought that there was a sense of the term being for each category; and in making the classification, he wanted to distinguish as many different senses of being.[163]

It is also certain that he did not think that the table of categories encompassed *all* the senses of being.

Thus, when he distinguished the several senses of being, he mentions the table of categories only at the end after he has called attention to other equivocations of the term.[164]

Plato also suggested that there are several senses of being. For he contrasted being (*ου*) with non-being (*μὴ ὄν*) and said of the latter that it *is*. Thus it would seem that he treated non-being as a being (*ὄν*), but naturally in another sense of being.

Aristotle carries the investigation much farther and calls attention to a great number of extended senses of the term.

Sometimes, he says, a thing is said to be, not with reference to its own being, but with reference to the being of some other thing that is accidentally associated with it. Thus one may say: a body *is* here, close to me. But this "being here, close to me" is not a being by virtue of which the thing *is* as a body. Aristotle called this extended sense of being that of a *ὄν κατὰ συμβεβηκός*. But he had already excluded this by the time he began to classify the categories.

He also notes that sometimes we use the expression "it is" when we want to say, "A judgment is true." Thus, instead of saying that it *is true* that there cannot be a round square, we may say that *there is* the impossibility of a round square. But he also excludes this, when he turns to the division of categories.

He also notes this further sense of *being*. Sometimes we say of someone that he *sees* even if his eyes happen to be closed; we thus contrast him with a blind person who is not only such that he doesn't actually see but is also such that he lacks the capability of seeing. And in just this same sense, we may call something being just

* Their designation of the categories as *τὰ γενιώτατα* is not inappropriate. But when they say that matter is the first category and formed matter the second, they betray inadequate understanding of Aristotle's purpose. See Trendelenburg's *Geschichte der Kategorienlehre*.

** Compare Tendelenburg, *op. cit.*, on Plotinus' unhappy attempt to interpret Aristotle's theory of categories Platonically.

because of the mere capability of being. Aristotle called this a δυνάμ ὄν. But these were also excluded from the table of categories, even though every such belongs in a certain sense to the category of the being which is capable of becoming.

Much the same may be said of that which we designate with an abstract term and of its relation to that which we designate with the corresponding concrete term. If the thing designated by the concrete term is the actually existing thing, then the form, like the δυνάμει ου is in it, so to speak, as an actually existing thing and therefore may be said to *be* in an extended sense.[165] But it will be classified along with the actually existing thing and will be under the same subdivision.

3. After disposing of these extended senses of being, Aristotle proceeds to a reinvestigation of the many meanings of being. This is the distinction of categories. He specifies these ten classes: Substance; Quality, under which he includes sensible quality, figure, habit, disposition and power (δύναμις); Quantity; Where; When; Action; Passion; Relation; Situation; and Having (ἕξις or ἔχειν). Situation is exemplified by lying, sitting; having by being clothed, and being armed.

Obviously we are dealing here with determinations which are given in reality and wich are ascribed to a subject. The subject, however to which they are ascribed is an individual of the first category – an individual thing. This first category includes, not only the individual thing, but also those general determinations which belong to its definition.[166] Each of these is a being in the strict sense of the term. But the *other* categories include only beings in an extended sense of the term; they may be said to be beings only because they hold of that which is a being in the strict sense. They are individuated by what exists in the strict sense; the converse is not true.

Of the nine classes that contain being in the extended sense, Aristotle says that in some cases the relevant sense of being is even less strict than in others. This is because the cases may involve a more or less fixed relation to what exists in the strict sense. Consider, for example, being related to another thing. If the other thing changes, then this may fall away without there being any change in the substance itself.

Occasionally Aristotle includes several different categories in one broad subdivision. Sometimes he includes all nine under the term συμβεβηκός. At other times, he classifies Where and When as τὰ ἐν τινι. Again, he thinks of Quality and Quantity as *inhering* accidents and of Action and Passion as *motion*. He also thinks of several of the classes as comprising intermediate beings (μεταξυ ὀντα). He thinks of Action, Passion and Habit this way, and possibly also Relation and Situation.

In the light of the foregoing, it seems obvious that the nine accidental classes

are concerned with concrete, real determinations which hold of a substance without belonging to its essence. They can thus fall away without affecting the individuality of this substance.

4. If now we consider the problem in all its detail, we can easily see that Aristotle could not complete the task he had set for himself. This is because his conception of substance itself is vitiated by a number of mistakes. Thus he is mistaken in supposing that the sensible quality of a body, as well as its place, its time, its quantity, and its shape, are not substantial determinations.[167] He is also mistaken in supposing that no *part* of an actual thing can itself be called an actual thing. These errors, of course, were reflected in his classification.

5. Let us now make a fresh attempt to complete the classification. We will avoid the errors just referred to. And we shall not assume, as Aristotle did, that no accident can be subject of another accident. But for the rest we should take account of the entire area that Aristotle had in mind when he attempted to make his classification.

Like Aristotle, we will not consider those cases where the ultimate subject is a multiplicity of substances rather than a single substance.* But we must not disregard those cases where the subject is a unitary substance within which a multiplicity of real substances can be distinguished.[168] These latter cases give rise to a special class of real predicates.

6. The first category is obviously that of substance; on this point we agree with Aristotle. But, as we have said, we classify as substantial a number of those determinations that Aristotle thought of as being merely accidental. These include sensible quality, place, and the continually changing time.**

But if place is a substantial difference, then spatial quantity, figure and situation must be thought as being in a certain way substantial determinations. For once the place of a body, part for part, is exactly specified, then these other substantial determinations, such as quality, follow implicitly, for they are united with the place of the body, part for part. One could also speak, however, of relations which obtain between the real parts of a real whole and which constitute an inner determination. We will return to this point.

Naturally we should keep in mind that the substantial determinations of bodies

* But it would seem that Aristotle was not being consistent in overlooking this case, since he refers to number as a kind of quantity.

** We must distinguish between the spatial determinations as such and the relative determination of place by reference to other places – places occupied by bodies other than the subject. Thus I may say of someone that he is in a certain house in a certain city. If the house should cease to be, the place may yet remain the same. The place changes only if the person himself moves and what the place is will depend upon whether the person is at rest or whether he is moving with a certain speed along a certain path. Similar considerations hold of the time determination.

which I have here cited are given to us only phenomenally in perception and that their actual existence remains in question.* But this should not prevent us from assigning these determinations to the first category.

7. After the first category, substance, there comes next the accidents in the narrow sense of the term – that is to say, those accidents which are *absolute* (not merely relative to something else) and *internal* (not specified merely by reference to something outside).

The habit [*Habitus*] of a skill or a virtue would seem to be such an accident – but one which, indeed, we never grasp intuitively but only infer on the basis of our experience of the acts which manifest it. Since we have no intuition in these cases, we must rely upon surrogate concepts, and this is what we do when we say, for example, that his habit enables us to perform the relevant acts frequently and without difficulty. Aristotle assigns such habit to his category of Quality.[169]

8. The absolute accidents just distinguished are to be distinguished from a second class of accidents; these other accidents may be said in a certain sense to hold only incompletely of the subject.[170] The absolute accidents are born by the subject alone and, so to speak, inhere in it; they can be removed only if destroyed by some external cause. But these further accidents are present in the subject only as long as some efficient cause preserves them there. Once the cause ceases to operate, the accident ceases to hold of the subject. We find this in the case of sensation and indeed also in the case of every kind of higher intellectual activity. With Aristotle, we will call these a Passion or Undergoing (πάσχειν).[171] Though habit does not belong to this class, the formation of a habit does, for this requires an efficient cause external to the subject.

To the extent that such an Undergoing (πάσχειν) is less completely supported by its subject, the efficient cause would seem to be similarly a support of it and in a certain sense its bearer. And so the accident is also something which may be said to be in the cause – but in an essentially different way. That which we have called an Undergoing in the original subject is to be called an Action (ποιειν) in relation to the efficient cause.

What we have said should make it clear that Aristotle was justified in refusing

* Just as there are modes of judgment and modes of feeling, so, too there are modes of presentation. These include the temporal modes (present, past and future with their manifold distinctions) and the distinction between the *modus rectus* and the *modi obliqui*. If now we consider an experiencing subject in the *modo recto,* we consider that which he experiences in *modo obliquo*. If we apprehend the experiencing subject in *modo recto,* then we also apprehend in *modo obliquo* what he experiences and we say it has a *phenomenal being* – just as we speak of a *past being* or a *future being* in the case of that which is apprehended in the mode of the past or in the mode of the future. But we are not using "being" in its strict sense if we thus speak of phenomenal being or past being or future being.

to assign πάσχειν and ποιειν to the category of Relations. For even though a certain outside support is required for the existence of the accident, the subject functions all the same as an absolute support.

9. After those absolute determinations which inhere in their subject and those which are born with the help of another subject, we list the *relative* determinations of one substance with respect to another. They do not add to that which is contained in the combination of certain absolute determinations which hold of the two substances. They yield the relative determination, however, in that one of them may be regarded as a correlate *in recto* and the other *in obliquo*. This is the sole reason why we cannot say that the subject of predication is a collective of substances instead of a single substance. And just as a collective of substances can cease to be while one of the substances remains unchanged, a relative determination can be lost without any change in the subject which has it. So these determinations, as Aristotle says, belong least of all to the reality of the substance.[172]

10. These relative determinations are very closely related to still another class of determinations – those *denominationes extrinsecae* which, so to speak, come from outside. The distinction is easily made by reference to examples. I say that a certain substance is similar to a certain other substance, then the similarity of the first substance corresponds to that of the second substance. But suppose I say that a certain substance is similar to a certain *substance that thinks* or to a certain *substance that wills something*. In this case, I am referring to certain determinations which do not characterize the first subject in any way – either absolutely or relatively. And similarly if I say, of a body, that it is near a pine-tree or near a poodle. If I were to say only that it is near something that is next to it, then I would be affirming a relative determination. But the case we are considering is one in which we speak of certain absolute determinations, not of the subject with which we are concerned, but of another thing which I have related to it.

If I were to say "*A* is smaller than *B*," than the being-larger of *A* corresponds to the being-smaller of *B*. But if I say "A person is in the market-place," then my statement pertains to a variety of determinations of the thing to which I am relating the person spatially. And these determinations do not pertain at all to the place as such; they are properties which are absolute for some *other* thing and do not even have relative significance for the person in question. If I were just to consider the proper correlate alone, much of that which I have just specified would fall away, but it would be completely extrinsic to the person to whom I have attributed the determination. Again, suppose I say that *A* resembles a certain man who visited me yesterday, has assets of a hundred Thalers, a family

of five children, and is about to become a minister. In this case, I haven't affirmed merely a simple relation of sameness. I have referred to a variety of determinations which have nothing to do with sameness. And these determinations pertain, not to the subject of whom I am making an assertion, but rather to what it is that I am comparing that subject with. So far as that subject is concerned, they are mere *denominationes extrinsicae.*

I have already noted that, in analogy to these *denominationes extrinsicae,* we may also speak of a certain *denominatio intrinsica.* We have this when we have one real substance which is composed of several actual substances. Suppose I say, for example, that someone is standing on his head, or is sitting, or lying. Here we are concerned with relations obtaining among those substances which are parts of a single substance; these relations constitute an attribute which may be attributed to the substance which is the whole.

11. To complete what we have said, we should also take note of this fact: just as a substance may be the subject of an absolute accident, an absolute accident may, in turn, be subject of still another absolute accident.

This fact entails a number of consequences pertaining to relative determinations. It is easy to see what they are.*

12. It should be noted also that Aristotle was right in assigning certain types of πάσχειν to another category. A quality that is coming into being is, in so far as it is coming into being, an Undergoing; yet it also belongs in another way to the category of Quality.

If it is correct to say that all created substances are preserved by God in their being as long as they exist, then these substances, like the activity of thought in us, are to a certain extent supported by a cause and therefore every created substance as such could be called a πάσχειν. This may show what truth there is in Descartes' observation that God alone is substance in the full sense of the word.[173]

13. So far as our experience goes, we never encounter any absolute accident in the realm of *physical* phenomena: we find no inherent accidents and we find no absolute accidents that are supported by the influence of other subjects. Naturally we find relative accidents in the realm of physical phenomena – but since

* Some relative determinations pertain to the substance directly and others through the mediation of one or more absolute accidents. Indeed, relative determinations may be grounded upon other relative determinations. If I say that one lion is essentially like another, the substance of the one lion is the direct fundament. If I say that the one lion is as angry as the other lion, then the angry activity is the fundament. And if I say that the one lion resembles the other in anger in the way in which the deer that they are pursuing resemble each other in fear, then one relation forms the fundament of another.

outer perception lacks evidence, what is physical is immediately given only phenomenally. We have every reason to assume, however that there do exist spatial, physical things having qualities analogous to the qualitative physical phenomena we perceive, that these things come into being and pass away, that they may be at rest or in motion and that in either case they undergo real temporal change, and that therefore a πάσχειν is not lacking, even if this is also to be assigned to the category of substance.[174] Analogues of psychical accidents are thus conceivable in the corporeal domain – even though our psychical accidents are unmistakably mental.[175]

14. The psychical domain provides us with many examples of absolute accidents which exist in other absolute accidents. Thus I may first think of a certain object; then I may accept it or reject it, or I may love it or hate it. Again, after proving a mathematical theorem, I may still accept the conclusion of the proof after the evidence has been forgotten. In this case, what had been a judgment made with evidence is now a judgment without evidence. The conviction remains individually the same, but it has lost that accident which was its being evident. When one draws a certain conclusion, the apprehension of the premises brings about the apprehension of the conclusion. Thus we have in the apprehension of the conclusion an undergoing, where the apprehension of the premises appears to be the subject of a doing. If now the apprehension of the conclusion remains and the premises are no longer being considered, then this apprehension is no longer a πάσχειν as a result of the premises. And so have to consider whether this apprehension remains a πάσχειν. Is it an accident inhering in the mind or is it a πάσχειν which is brought about by another cause? This whole investigation of accidents of accidents must be conducted with great care, for there is danger of error all along the way. Consider those cases where something is at once the object of a presentation, a judgment, and an emotion. It is clear that in some such cases the relevant presentation can not also be the subject of the judgment and of the emotion. Thus in the affective states of sensation, there is an interpenetration of inner presentation, perception, and emotion.[176]

15. Everything which is realized in a given *ens reale* belongs to its reality. And the substance thereby belongs to the reality of its accident, together with all its determinations and thus also its general determination as substance. But it would not be correct to say that the accident is an *ens reale* in the sense that the substance is. The accident contains the general concept of substance in its own reality only to the extent that it also contains the ultimate individuating substantial determinations of that substance.[177] The accident is not itself a substance; it is rather something which enriches the substance and which in so

doing includes it and is given along with it. It is best compared to the whole of a real unitary continuum; such a whole *includes* a real thing in each of its halves but it is not this real thing itself. But there is this difference between the two cases: in the case of the continuum, each of the two halves is real and together they constitute the whole; but in the case of the substance, only substantial determinations are added to the accident and these do not strictly involve a *second* thing in addition to the accident. Thus the highest concept under which the accident falls as such is not that of substance; it is a more complicated concept which includes that of substance. Consider someone who with evidence apodictically rejects round squares. The highest concept under which such an accident may fall as an accident is that of a judging mind – not, however, that of a mind.[178] Therefore Aristotle would seem to be right in saying that an accident is not a being in the same sense that a substance is a being. And so it also follows that the concept of being may be different as applied to different accidents. The accident is not a being in the sense in which its substance is a being; if now this accident is itself the subject of a second accident, then the second accident cannot be said to be a being in the sense in which *its* subject is a being. It follows that the senses of being and also of the categories are considerably more numerous than Aristotle himself had thought.[179]

16. Aristotle thought that every definition of a substance is given by a descending monostoichetic series. He assumed that there can only be one such series and he took this fact to be the basis of the unity of the definition and of the thing defined. But this cannot be the case. It is impossible to arrive at individuation in this way. Moreover, physical phenomena provide us with intuitive examples of ultimate specific differences which individuate each other.[180] Because Aristotle assumed that there can be only a single ultimate specific difference, he assumed that there is only *one* genus of substantial corruption (though here, too, the doctrine could not be worked out satisfactorily). Once we see that substances can be defined by pleiostoichetic series, we find that there are many different kinds of substantial transformation. These include change of place, qualitative change, and strictly speaking also temporal change. Corresponding to this, accidents can be also said to be subject to different ways of coming into being and passing away, of which the one is heterostoichetically related to the other. And Aristotle had in fact seen the truth of this. For he taught that an accident may be produced or destroyed, not merely in the accidental way that is peculiar to it, but also by the production or destruction of the substance that underlies it.

It is also obvious that relative determinations are subject to different types of coming into being and passing away. Thus one would be via the corruption of the terminus and the other would be via the corruption of the fundament.

Subsequent Observation

17. What I have said in paragraph 15 above requires corrections in several ways. It is true that the relation of substance and accident is the relation of a part to its whole and hence that it is similar to what we have in the case of the real parts of a continuum and their relation to the whole. But there is a fundamental difference between the two cases which we had noted but had not sufficiently emphasized. We were concerned with the case where accidental determinations are added to substantial determinations, and we had compared it with the case where the parts of a continuum are added to each other. But it would have been more accurate to have compared it with the case where the heterostoichetic logical determinations are combined in a definition with the determinations of another series of differences. Then the distinction between the two cases would be only this. In the case of series of differences belonging to the substantial definition, they must be united if they are to yield an individual and no one of them is sufficient by itself.[181] In the case of the accident, however, all the substantial series of differences are included within it, along with still others. Thus within the logical series which belong to it two different groups are to be distinguished.[182] There is the substantial group which constitutes in itself an individual. And there is the accidental group which constitutes an individual only when combined with the substantial series. The individual which thereby results is obviously not the same as the one which had been yielded by the totality of the substantial series. There is no contradiction involved in supposing this: a universal may result from addition of an accidental series to the totality of substantial series, if the substantial series in its totality has already led to a complete individuation. That this is possible should be no more suprising than the fact that, by adding not a complete accidental series but only the highest differences within the series, we arrive at something universal. It is a universal, but one having the restriction that it belongs to just one individual substance.[183] If the accidental series when added to the totality of substantial differences yields a universal, then this universal is affected by still further series of accidental differences which are related heterostoichetically to both the substantial series and to the original accidental series. If the new individual which is yielded in this way contains the substantial individual as its subject, then it may itself be combined with still further universal determinations. This is similar to what we have when the substantial determinations within it are combined with accidental ones which are then individuated by further differentiations as accidents of accidents.[184]

In the case of the heterostoichetic *substantial* series, each species down to the last one can be thought without thereby thinking of each of the other differences. So, too, in the case of the accidental series: these can be thought down to their ultimate specific differences, and one does not thereby think of the substantial

series except in the most general terms or possibly with respect just to its higher specific differences.[185] But in such cases, the accident is never individuated, even if the concept includes all the accidental differences down to the last species. Otherwise the accidental determinations would have to be called substantial determinations of a second substance, and the second substance would be combined in a whole with the first one in the way in which the different parts of a real continuum are combined in a larger substance.[186]

18. We can, then, make the following points:

(a) The concept of being is one and the same for substance, for all accidents, and even also for all accidents of accidents.

(b) Substance, then, does not mean the same as "being in general."[187] A substance is rather a being of this sort: no specific differences hold of it as such other than those which are necessary if it, or even just a part of it, is to persist as an individual.

(c) The contrary is true of the concept of accident. The differences that it contains are such that, if they were to fall away, then, although the whole itself would lose its individuality, it would *not* be the case that every part of the whole would lose its individuality.

(d) Needless to say, the same holds of the concept of an accident of an accident.

(e) Although an accident is a being in the same sense that the substance is, and accident and substance thus fall under the same highest concept, it does not follow that the accident and the substance are one and the same thing. The accident includes the individual differences of the substance in its own individual differences, but this does not mean that the substance and the accident are one and the same individual. Here we note again what we have said about the relation of a continuous whole to its parts. There is, however, this difference between the two cases. The individual concept of the subject can be predicated of the accident, just as, more generally, the concepts forming heterostoichetic series are predicable of each other. Thus one can say that a thinker is a mind and that a knower is a judger, and the judger will be the subject of the knower just as the mind is the subject of the thinker. Thus, in the case of the knower, if the evidence falls away, then the judger as such will remain individually the same accident.

19. Turning back now to Aristotle, we may say that he was mistaken in assuming that there is no unitary concept of being for both substance and accident. The categories, therefore, should not be thought of as different senses of being, nor even as constituting the different highest predicates or highest genera. It would be more nearly accurate to say that they are the various highest differences of being. But this is not entirely correct and it does not enable us to

characterize the distinction between substances and the different types of accidents. For there are also several highest substantial differences which as such do not stand behind the highest accidental differences.[188] To arrive at the true concept of a category, we must take into consideration the results of what has just been said, for only in this way can we see the distinction between a subject and that which the subject underlies. The highest classes of that which holds accidentally of a subject are greater in number than Aristotle had thought. And this may be said even though several of the determinations that he took to be accidental – for example, sensible quality, place, real time, and perhaps also extension and shape – are in fact substantial determinations.

II. SUBSTANCE

A. PHILOSOPHICAL CONCEPTIONS OF SUBSTANCE (1912–13)[189]

1. Opinion differs widely today as to what is to be termed substance and what accident. The emergence of new theories and unfamiliarity with tradition have led to changes in the use of these terms – changes that were sometimes unintended, sometimes deliberate. Let us consider the more important uses.

Aristotle was the first philosopher to have a clear concept of substance. What he understood by substance may be explained as follows. He held, with respect to those concepts that can be combined attributively, that some are subordinate to others in the way in which a species is subordinate to the genus. For example, the attribute red is thus subordinate to color, and color to sensible quality. At the head of any such series is a concept that has no additional genus above it. The unity of this series, from the highest genus to the lowest specific difference, conditions the unity of the thing [*die Einheit des Seienden*].[190] If determinations from some other series were introduced, then the whole would lack unity. Different series fall under different highest genera, and the highest genus determines the relevant sense of being. But in fact, as it turns out, these series cannot always dispense with all heterogeneous determinations.[191] This makes clear that the last specific difference does not yield individuation. Hence it is impossible that there be an individual difference which is related to the specific difference in the way the specific is related to the generic.[192] And so we must conclude that the whole series can be individuated only by a determination belonging to a different genus. It may well be that we are unable to specify such a determination. But we can say that it falls under the most general of the generic concepts. The most general concept is contained in every concept belonging to the series, including the highest, but it is simpler and even more general than the latter. It is the concept of a *thing* in the strict sense. Only what falls under this concept and its specific determinations can be said to *be*. Of everything else one can say only that it *holds of* something which is a being [*es zu einem Seienden hinzukomme*]. Instead of saying that there *is* such a thing as *a large thing* or *a round thing,* or *a red thing,* or *a thing that undergoes something,* it is better to say that a *thing* is big, or round, or red, or is undergoing something. Or, again, that a body is big, or round, and so on. Aristotle called the thing οὐσία. He said of it that, when determinations of other genera are joined with it, then it underlies (συμβεβηκότα) these determinations

and they are its accidents (ὑποκεῖσθαι). Accordingly, the thing in the strict sense came to be called *substance.* And the improper beings [*die uneigentlichen Seienden*], those things which *are* only to the extent that they hold of a substance, are called *accidents.* Strictly speaking, only definitions of substances are properly called definitions, for only definitions of substances are such that they are wholly free from determinations of any other genus.[193] The substance is individuated by itself, whereas the accidents are individuated, not by themselves alone, but in relation to individuality of their substance. According to Aristotle, mental, corruptible, and incorruptible substances differ with respect to individuation. But we will not inquire into this matter here.

It is to be noted, however, that according to Aristotle only one substantial determination – that of a thing as such – is accessible to us. We have no concepts of the other substantial determinations, but must make use of surrogate concepts. Such surrogates are provided by the accidents which constantly accompany these determinations – whether these accidents are actual or whether they are mere potencies – in combination with negations. Naturally we are incapable of intuiting any accident in its individuality. Neither inner perception nor outer perception presents us with anything in its individual determinacy, even when we are certain that no more than one individual is the actual object of our perception.[194]

The foregoing clearly implies that every external object of outer sense, whether it be the object of one sense or of several senses, and therefore whether it be a quality, or a size, or a shape, or a unity, or a plurality, contains the general concept of substance, but in addition to the concept of substance it contains only accidental determinations.

According to Aristotle, one accident cannot be related to another accident in the way in which a substance is related to one of its accidents. In his view, the substance is not only the primary underlying or subsisting subject ὑποκείμενον; it is the only such subject.

2. Substance and accidents make up ten classes that Aristotle calls categories.[195] The things falling under different highest genera are linked with the substance in different ways and therefore they are predicated of it in different senses. The ten categories are: substance, quality, quantity, where, when, that which is active, that which is passive, relation, position, and possession.

According to the *Categoriae,* quality seems actually to include a number of categories. In ordinary language, however, the same interrogative, "How?," is used with reference to all of them.

Whatever belongs to the first or second accidental category [*i.e., quality or quantity*] has as its subject only the substance of which it is predicated. In the case of the first [i.e., quality] the determinations are given absolutely. In the case of the second [i.e., quantity] they are given relatively to a scale of measurement. This is surely compatible with the fact that the determinations in the second acci-

dental category are as absolute as those in the first. After all, a scale of measurement is also customary in the case of sound and heat.

The fourth and fifth seem, again, to be predicated absolutely, but the attributes of time refer to a fixed standard, namely, the position of the uppermost celestial sphere at any given moment of its rotation.

More significant is the distinction between the sixth and the seventh classes. Here the accident is conditioned by a substance other than the substance of which it is predicated. And so the two categories overlap in a way. One and the same thing is in one way an attribute of one substance, and in another way an attribute of another substance. This attribute seems to pertain more closely to that which is undergoing – no less so, one could say, than does an attribute of quality. Aristotle says that motion and thought belong to the category of passion: they are present, respectively, in that which is moved, and in that which is thinking, and they proceed from but are not present in that which moves and that which causes the thinking.

The next category is that of relation. Every relative determination has a correlative determination. When something changes in the correlative, then the relative determination falls away without any absolute change. But undergoing cannot cease unless there is an absolute change in the thing that is undergoing. Activity, on the other hand, can cease without there being an absolute change in the thing that is acting. One may ask, therefore, why action is not assigned to the category of relation. There would seem to be two reasons for this: first in the case of a strict relation each of the things related is such that it can remain unchanged when the relation changes: but in the case of action and passion only one is such that it can remain unchanged. And, secondly, in the case of strict relations, linguistic usage requires that both subjects, referent and relatum, be stated explicitly. One cannot simply say "Phaedo is taller": one must add "than Socrates," or the like. Every relation involves something named and thought of *in recto* and something named and thought of *in obliquo*. Of the three classes of relation listed by Aristotle, one of them is such that that which is named and thought of *in obliquo* is not real. Thus a thing that is thought of need not exist in reality.[196]

Position and possession may be called *denominationes extrinsicae*. Situation involves an attribute which is predicated of the whole, but which is equivalent to several relative determinations predicated of parts of the whole. When I say, "He is sitting" or "He is reclining," then what I say does not call for the explicit addition of a correlate; yet the overall attribute is equivalent to several relative determinations of particular members, and these relative determinations do call for an explicit statement of correlates.

What we have said of position is true of possession, with one difference. Position involves, in addition to the whole, certain parts that are contained in that whole; possession also involves something other than the whole but not some-

thing contained in it as its parts. A man is armed, a hill is wooded, a ship is manned, a horse is spanned, a horseman is mounted, and so on. Here again, no reference to a correlative is called for: yet what is here said can be expressed by a number of relative determinations. Just as position involves a certain ordering of parts in relation to each other, so possession involves a certain ordering of things – say, weapons (helmet, breastplate, and the like), in relation to the body. The only reason why no correlative predicate needs to be stated here seems to be that this need is met by the mode of assertion.*

3. The later Scholastic philosopher, Suarez, defended a certain modal distinction which pertains to Aristotle's doctrine of substance and accident. The distinction was supposed to be greater than the *distinctio rationis* and less than the *distinctio realis.* According to this view, every Aristotelian accident is a *modus.* Church dogma teaches that the accidents are separable from the substance in the Eucharist.[197] Hence the Aristotelian doctrine was abandoned at two points. In the first place, the accident was made self-subsistent; hence it was individuated independently of the substance. The view that quality** is thus self-subsistent was eventually extended to the other accidental categories.[198] And in the second place the fact that substance is included conceptually in the accidents was ignored. How otherwise would we get the concept of substance? Either it is wholly transcendent or it is found only in the psychical domain.

The influence of this Scholastic doctrine can still be detected in Spinoza, Locke, and Leibniz whenever they use the term "modus." Locke holds that substance is transcendent, whereas Leibniz finds it only in the soul.

4. Descartes interpreted the relation of the substance to its accidents as that of cause to its effects and indeed, as the cause that preserves them continually in being and, so to speak, supports them by virtue of its power. According to him, the extension of a thing should be the substance which supports its corporeal accidents, and thinking should be the substance of a thing that has mental accidents. But substance in the full sense of the term should only be that which exists without being caused, that is to say, God alone.

Much of this was not clearly thought out. The extension of a thing was supposed to remain the same while the thing changes its place and shape, but this is impossible.[199] Similarly our thinking should remain individually the same if we think of different things or in different ways. Obviously, however, our thinking is the subject of specific differences and even of contraries, and no single part of it persists throughout our entire life, not even the sensitive part on which all the

* Whether Aristotle eventually dropped these two categories, as some think, may be left undecided. Apart from the *Categoriae* and the *Topica,* possession is mentioned only in *Metaphysics* [△]. If Aristotle did make such a subsequent change in his table of categories, this was unknown to Plotinus as well as to those who came after him.

** [Reading *"Qualität"* for *"Quantität."* Tr.]

other parts appear to be conditioned. The consciousness of thinking must change when the thinking changes. Indeed, Descartes had his own characteristic dogmas about thinking. Thus the idea of God was supposed to be imprinted in each of us.[200] If this were the case, all of us could expect to be in a state of bliss, but nothing is more contrary to the truth. And since this thinking is common to all, it could not individuate anyone.

And one must also ask: If the accident is an effect of the substance, then is God not the immediate support of our accidents?[201]

Traces of the Aristotelian doctrine are to be found in Descartes, but he changes it in many ways and for the worse.

5. Spinoza may be considered very briefly. He contrasts substance with mode: the former as that *quod in se est et per se concipitur,* the latter as that *quod in alio est, per quod etiam concipitur.* This is reminiscent of the Aristotelian substance as *suppositum* of the accident, and that which is conceptually prior to the accident. But Spinoza speaks as though in every thought of a mode the substance is included completely and not merely in terms of its most general attribute. This leads him to the doctrine: *Idem est ordo idearum et rerum.* And since he holds that God is the first of all things, and indeed the only substance, he is also led to say that we have a direct and *a priori* knowledge of God. All of this, of course, is far from Aristotle and far from the obvious truth.

Descartes had treated universal determinations as individual. Spinoza followed him in this respect. Descartes had said that extension and thinking are attributes of substances: extension is the attribute of corporeal substance, and thinking the attribute of mental substance. Substance would seem to be for him something that is general: its modes are its specifications.[202] Spinoza repeats these errors, and then adds another: the two attributes, thinking and extension, are supposed to tell us, with respect to one and the same substance, what that substance is. Had he been consistent, he would have accepted the identity of these two attributes and the identity of all their modes, but he contented himself with his doctrine of parallelism. This was a new absurdity – but the seed had already been planted by Descartes. Descartes had held that the corporeal and mental substances (as distinguished from their modes) need only God as their cause and support. And so, as we have noted, the following question arises: Why cannot God directly produce all the modes produced by the secondary substances? According to Spinoza, this is precisely what God does. God is the only substance and both attributes, therefore, hold equally of his essence. Indeed God is said to have infinitely many attributes; these include the two – extension and thinking – which Descartes had assigned to the secondary substances.

6. According to Locke, the concept of substance is completely transcendent: we apprehend not what it is, but what it does. Experience shows that a great number of characteristics [*Merkmalen*] go constantly together: none of these

gives us any hint as to what the others are. We infer that there must be something lying beyond experience which links them together, and we say that it underlies these qualities as their support. The question is left open whether bodily and mental substances, if they were empirically given as such, would fall under a common concept. Since we have no genuine concept of substance, we use as a surrogate for this concept a complex of properties invariably found together.* Along with substance and absolute modes, Locke adds relation as a third class.

We see that, like Descartes and Leibniz, Locke transfers the substance relation into a species of the relation of cause and effect.

7. Leibniz maintains, in contrast to Locke, that the soul provides us with an example of a substance that is empirically given. And he holds that all substances are mental. He will not concede to Locke that specific determinations of substance are inaccessible to us. But in this connection he makes some odd statements. He says, for example, that substance is a concretum, and accident an abstractum. It is not to be wondered, then, that, when all the abstracta are taken away, nothing remains over for the concretum. Leibniz also says at times that the truly real is to be found in power; this is in line with his characterization of substance as that which is endowed with the power to bring about effects. He compares substance to a tightly stretched bow which, so long as not prevented from doing so, shoots the arrow by itself. The Aristotelian thought of a single series of differences seems to have escaped Leibniz altogether.

Along with substance, Leibniz distinguishes absolute modes and relations. Every multiplicity of substances yields a substantial collective.

Of the three classes thus distinguished by Leibniz – substance, absolute, modes, and relations – the second class comprises several Aristotelian categories. Aristotle himself occasionally treated several categories as a single group. But the following three points are characteristic of Leibniz and distinguish his conception of substance from that of Aristotle:

(1) substance has a tendency to action, like a tightly stretched bow;**

(2) it is simple;

(3) it is incorruptible – and this is supposed to be a consequence of its simplicity.

None of these three determinations can be found in Aristotle; the point should be emphasized in connection with the second and third. There is no *a priori* reason to ssume that the corruption of a substance must take place as a result of the

* Aristotle, too, spoke of accidental surrogate determinations. But these were surrogates for the substantial definition, and not for the entire substance concept. He also spoke of a complex of properties invariably found together; the fact that they appear together, he held, requires for its explanation the assumption of a substantial difference.

** Does this mean that he conceived modes as effects? And is this another consequence of viewing the substance relation as a type of causal relation?

breaking up of its parts; nor is there any such reason for the corresponding converse assumption. After all, the modes exhibit other kinds of change. Leibniz assumes that substance underlies the changes of modes without undergoing any changes as substance; he thus prepares the way for the Kantian version of substance.

8. Kant says we have the conviction that something permanent underlies every change; this something is substance. And Kant cites this conviction as an instance of a synthetic, *a priori* cognition. But it can hardly be said to be *a priori* for all human beings. Thus Anaxagoras reproaches the Greeks for believing that all things come into being and pass away. In other words, the belief which, according to Kant, is universally impossible was widespread among the Greeks. Even Aristotle, when he says that matter underlies every change, does not refer to the permanence of something actual; he refers to something that is a mere potentiality, and hence to something that, strictly speaking, is not to be called a being. It is true that Aristotle characterizes certain substances as incorruptible, but he says of others that they are corruptible. Obviously, then, the term substance as used by Kant had lost its original sense. Aristotle's view of substance as being the bearer of accidents is suggested only by the word "underlie" (a word which Kant does not adequately explain), for to the "under" there must correspond an "upon." But we should also note that, for Aristotle, certain substances cannot have any absolute accidents at all.[203]

Thus we can say that the Kantian concept of substance has virtually nothing in common with the Aristotelain one; identification of one with the other can lead only to utter confusion.

9. John Stuart Mill's version of the concept of substance also deviates considerably from the original. Many terms, he held, are of such a sort that only a limited number of properties are associated with them, and these properties are easy for us to ascertain. But certain other terms are inexhaustible in respect of the determinations which are linked with them. We do not even pretend to think that we could list them all. Terms of this latter sort include those for chemical elements, chemical compounds, and organisms. These latter determinations are what we call substantial as distinguished from those we call accidental. This doctrine is untenable in several respects:

(a) First of all, many entities that Mill himself would not call substances fall under his definition. Thus, as Locke had noted, the properties common to all triangles cannot be enumerated. One may object that the characteristic properties of a triangle, unlike those of a substance, are linked to one another analytically. This objection would be right in my opinion, but according to Mill it would be wrong. Does not the concept of nation or state also involve an incalculable number of properties? Like the properties involved in Mill's substantial concepts, they are not linked together analytically.

(b) When we examine Mill's substantial determinations, we find that many of them are compounded of accidental, relative, negative, and potential determinations. They are in fact complexes of characteristics, of the kind Locke proposed as surrogates for the inaccessible concept of substance. But Mill does not hold them to be surrogates: he views accidents, negativa, and bare potentialities as elements of substance. In this way he stands everything on its head. The generally accepted view is that substance is that which conditions the accidents. Unless one completely ignores the original intention which was the guiding principle in setting up the concept of substance, it is wholly illegitimate to include among substantial determinations those which say that something does *not* hold of a substance or that something is merely such that it *could* hold of a substance.

Possibly Mill would answer this objection from the point of view of his nomunalism. Thus he might say that the names associated with substantial characteristics are not names for general concepts, but that they are used ambiguously for a multiplicity of individual concepts. Then only one of the meanings of the one would coincide with a meaning of the other. The individual terms combined with one another would not denote elements of the substance; rather, each would denote the whole substance; their combination would serve merely to indicate that the terms now have their substantial use, and to distinguish this use from their other uses.

But he would have to go on to say that one and the same term, in its ambiguity, denotes that which is substantial and also that which is accidental. Moreover, since no accident severed from the substance is individually determined, a consistent nominalist must hold that all names are substantial terms. The distinction which Mill proposed to substitute for that between substance and accident would then be only this: since all general names are ambiguous, what distinguishes those called accidental is simply that their ambiguity is even more far reaching than that of the other terms. The so-called substantial terms are simply those which are restricted to a certain sphere in which a greater variety and a greater number of similarities are to be found.[204]

(c) What we have here, like Hume's definition of causality, is typical of the way in which positivists, in striving for intuitiveness, are led only to superficiality. Mill lost sight of the whole problem of the modal distinction, as an intermediate between the conceptual and the material distinction. And he also ignored the problem of distinguishing between one mind and another, as well as that of distinguising the various parts of a physical continuum. Hume had treated the simultaneous psychical activities of our experience as a bundle of things; yet here more than anywhere else it is clear that we are dealing with a real unity, with elements which, unless they differ only conceptually, must differ one from another modally, and thus accidentally.[205]

(d) If Mill has little in common with Locke, then, naturally, he has even less in

common with Aristotle. As might be expected, he does not go into such questions as that of the monostoichetic character of the substantial definition. He does not deny that substantial names have higher and lower degrees of generality, but he must interpret this as a matter of a greater or lesser degree of ambiguity. How, then, are we to distinguish a more general substantial name enriched by an accident from one enriched by the concept of a substantial difference? These questions would require a more detailed discussion.

10. Wundt discusses the concept of substance in his *Logik*. He proposes to show that it is composed of three attributes – simplicity, activity, and constancy in change. Aristotle himself, he says, singled these out as characteristic of substance, for he used the term "substance" to denote (1) the concrete individual thing, (2) the form which he also calls *energeia,* and (3) that which underlies change without changing itself. The progress of science, according to Wundt, confirms the hypothesis that a principle characterized by these three attributes is the substratum of sensible phenomena, i.e., their external efficient cause. To be sure, this is only an hypothesis. Some philosophers have postulated that such a simple, active, and unchanging entity also underlies psychical activities; but, according to Wundt, such an hypothesis is totally unwarranted since these phenomena are in themselves real and active. With this Wundtian doctrine of substance, the confusion reached its highest point. Wundt goes astray from the very beginning. Everything he says about Aristotle is gross misinterpretation. Aristotle never included the attribute simplicity in the concept of substance. (Individuality is not simplicity; a singular idea is more complex than a general idea.) Nor did he include the attribute of activity in the concept of substance. (According to him, a completely inactive substance is perfectly conceivable.) *Energeia* in the sense of substantial form is not identical with activity, for the πρώτη ἐνέργεια is not always accompanied by the δευτέρα.[206] Nor does Aristotle maintain that substance underlies changes without ever changing itself. Indeed, according to him there is such a thing as a κίνησις κατὰ τόπον, an αὔξησις καὶ φθίοις, and ἀλλοίωσις – that is to say, changes in place, quantity, and quality – as well as a γένησις καὶ φθορά, a substantial generation and corruption. Terrestrial bodies, he says, undergo substantial change. And he calls God a substance, although God's absolute unchangeability seems to him beyond all doubt. What is correct in Wundt's statement is only this: according to Aristotle an accidental change need not involve a simultaneous change in the substance; but a substantial change necessarily involves changes in all accidents, since in the case of such change, each accident becomes individually, if not specifically, another.

And so, Wundt is utterly careless in his account of the Aristotelian concept of substance. Actually he replaces it with a combination of Leibnizian and Kantian elements.

To this he adds his own confusion, for he identifies the relation of accident and

substance with that of phenomenon and thing in itself.

When we see something red or feel something warm, we cannot take it for granted that there actually is something that is red or warm. We do have good grounds for the assumption that a set of vibrations or some other physical process, of which we have no intuitive concrete idea, acts upon our sense organs and causes our sensations. Such a process could be said to underlie what is red or warm in appearance by being its precondition. If now one goes on to say that to underlie is to subsist, then in effect he is calling this unintuited process a substance and he may then consistently deny that there is any substance underlying the thinking and willing that we apprehend intuitively. For inner perception is just as certainly evident as outer perception is blind. In the case of inner perception, we are dealing directly with the thing in itself and there is no need to seek for it behind the appearance. To this extent, then, Wundt is perfectly correct, and is to be commended for avoiding Kant's error of judgment in assuming that even the object of inner perception is merely phenomenal. But, as we have said, Wundt must be reproached for confusing the concept of the thing-in-itself with that of substance – a confusion implicit in his injunction forbidding the use of the term substance with reference to the psychical domain. The thinking and the willing that we perceive are in themselves just as they appear. But this does not mean that they are not accidental.

It should be noted in passing that Kant is not at all guilty of this latter confusion. According to him, the distinction between thing in itself and phenomenon is essentially different from the distinction between substance and accident. He believes that we have no right to ascribe being in itself to substance, or to say that the thing in itself (Kant never doubted its existence) is a substance. It is true that much of his doctrine concerning the thing in itself is incomprehensible. Thus he says that the concept of substance is an *a priori* concept; so, too, the concept of existence. What about the concept of the thing in itself? Is it also *a priori?* If not, how do we arrive at it? And how do we reach the conviction that there are things in themselves? It would seem that we do this by inferring a cause in itself which is required by the phenomena. Yet Kant *also* says that causal inferences are always inferences from phenomena to phenomena. The whole doctrine of a merely phenomenal knowledge without knowledge of things in themselves is incoherent. All this confusion may have encouraged later philosophers, entirely against Kant's own intention, to confound the concept of thing in itself with that of substance.[207]

11. I should note, finally, that I have not discussed the extended senses of the term substance, and so I have not considered the kind of expressions we find in Hegel. Some have even spoken of a substantial soup.

Another extended use of the term substance is this. One says that a determination is substantial if it is such that, when lost, the thing that had it can no longer

fall under the same general concept as before; all other determinations are then called accidental. In *this* sense of "substantial," to say that a treatise has 300 pages is to specify it only accidentally; the specification would be substantial if the treatise were said to contain a series of essays. A determination is said to be accidental in this sense if it does not belong to the content (to the so-called definition) of the general concept under which the thing in question falls. In using "accidental" in this way, one overlooks the fact that accidental definitions may also be general, and that substances as such also underlie individual differences. And yet the term "essential" has long been used in the sense of "pertaining to the definition," while the term "essence" was used at the same time as equivalent to substance.[208]

B. DERIVATION OF THE CONCEPT OF SUBSTANCE[209]

1. What is the content of the concept substance, and how do we arrive at this concept?

To be clear about the concept, let us first consider some examples. I would say that a body, a mind, and a god are substances. But I would also say that a multiplicity composed of bodies, or of minds, or of a mind together with a body fall under the concept of a substance. Any multiplicity, however, can be described as being *substances,* but this is not true of any ultimate [*letzteinheitlichen*] substance.

To be still clearer, I note that substance is to be contrasted with accident. The term substance is applicable to a thing only to the extent that the thing is not an accident. This requires further elucidation.[210]

2. We can grasp one and the same thing by different concepts. Hence the thing grasped by one such concept may be predicated of the thing grasped by another. Thus we say that a red thing is a colored thing; and that it is a square; also that it is two feet long. And, again, that one who is thinking something is at the same time one who is willing something; that one who is hearing something is at the same time one who is seeing something.

In this connection we may also speak of the *logical parts* of a thing. Thus a thing that is seeing red can also be said to be a thing-that-is-seeing [*ein Sehendes*]. in which case it is conceived incompletely.* Or it can be said to be a thing-that-is-sensing [*ein Empfindendes*], in which case it is conceived even more incompletely. The thing-that-is-sensing thus appears to be a logical part contained in the thing-that-is-seeing. But the simplest logical part of a thing is yielded by the high-

* [In the present context hyphens are introduced in descriptive phrases which are used to translate Brentano's nouns, e.g., *Sehendes.* Tr.]

est generic concept under which the thing falls. And just as the highest generic concept is contained in the specific concepts that fall under it, these specific concepts in turn are contained in lower specific concepts, and so on, until the ultimate concept is reached.

3. How, then, does this differentiation occur? One is supposed to say: by adding a second logical part. But this is not the case. When we compare "red thing" and "colored thing" we find that the latter is contained in the former, but we cannot specify a second thing that could be added to the first as an entirely new element, i.e., one that would not contain the concept, colored thing. The red thing is distinguished from other colored things as being a red-colored thing. Consequently, the differentiation is identical with the species. This point had been made by Aristotle.[211]

4. Just as unquestionably as he was right on this point, so he was in error on another; he assumed that every generic concept had only one proximate difference, and this again only one, and so on, with the result that the entire logical differentiation of the thing comprises a single series.[212]

One consequence of this error was his peculiar doctrine of individuation. According to his view of differentiation, when we descend from quality to color and from color to red, we come to a final difference but not to an individual difference. For it is obvious that there can be a number of red things, some here, some elsewhere. Hence Aristotle looked for the principle of individuation in matter – which according to him is a bare potentiality, and in which the forms are present as actualities.

Any unbiased observer can readily see that this doctrine is untenable. Thomas Aquinas took it over all the same, but it was decisively rejected by Duns Scotus. Scotus, however, held to Aristotle's error concerning the single series of differences, and thus he arrived at the wholly imaginary fiction of an haecceity, which as the antithesis of the highest generic concept is supposed to form the ultimate difference. Just as the highest genus cannot be further generalized, the haecceity cannot be further differentiated. For the reason, the haecceity is no longer a specific determination but an individual one. It is impossible, however, to find a way un which differentiation can continue in the same line, and so this expedient must definitely be repudiated.

5. How, then, is individuation possible? If we are to answer this question, we must reject the completely unfounded assertion of Aristotle, according to which a generic concept can have only a *single* proximate difference and can be specified only in a single series of differences subordinated to one another. Consider, for example, the concept, one-who-is-judging. It is differentiated according to whether the judging has this or that as its object. But it is also differentiated according to whether the judgment is affirmative or negative, apodictic or assertoric, blind or evident. Consider another example. A body is a thing-that-fills-space

[*ein Raumerfüllendes*], and is differentiated according to the place it occupies, but also according to the way it fills the place. If a space is filled with red, then neither the thing-that-is-here [*das Hierseinde*] nor the red-thing [*das Rote*] yields the individuation. For if the thing-that-is-here were blue, then the thing-that-fills-space would not be the same. And if the thing-that-is-red were there instead of here, then once again the thing-that-fills-space would not be the same for the space would be filled in an entirely different way. It is only the two series of differences together that can bring about what Duns Scotus proposed to accomplish with his haecceity and a single series.[213]

Thus, by correcting Aristotle's first fundamental error, we dispose of the difficulty that led to his second error, i.e., to his absurd doctrine of individuation.

6. If the genus can be differentiated into several proximate species at the same time, then the latter species in turn can be differentiated into several subspecies. To what extent this is actually the case must be decided, not *a priori,* but only in the light of experience.[214] We shall return to this matter later.

Now let us take note of still another important distinction. Of our parallel series, some *must* be given at each stage if the genus is to subsist, but others can fall away. An example may illustrate this. We said that one-who-judges can be differentiated both as one who judges this or that object and as one who judges affirmatively or negatively. There cannot be one-who-judges unless there are also both types of difference. But we have said that evidence and apodicticity are also differences and these can fall away. In each case, the whole series also falls away; for "assertoric" means no more than "without the character of that which is apodictic," and "blind" means no more than "not evident." Both terms are privative.

If a person makes an evident judgment, now about one object and now about another, then, obviously, he does not have at the later time the same insight he had at the earlier time. But it is possible to judge something with evidence – say, to reject something – and to retain this judgment in memory when it is no longer evident. (Thus a theorem, such as that of Pythagoras, will be evident only so long as we are aware of its proof.) Similarly, a person who makes an apodictic judgment about one thing, and then makes an apodictic judgment about another thing, does not make the same apodictic judgment both times. But the acceptance or rejection contained in the judgment can remain after its apodictic character had been lost. Hence it may be that the determinations of one series are dependent upon those of the other, and not vice versa.[215]

But in the case of the determinations, "judging affirmatively" and "judging about A," the dependence is reciprocal. It is not possible for one and the same affirmation to have one object at one time and another object at another. And it is not possible for one and the same judgment to reject an object at one time and to accept it at another. Here the determinations condition one another – either

would be indeterminate without the other. But in the other type of case the determination was one-sided. The determination in the one series is complete and the addition of the determination from the other series does not determine it further.

7. Nevertheless, when the one determination was added to the other, the result was *one* thing. No second thing is added; the first remains all that it had been and yet it becomes enriched or extended, so that a new real predication can be applied to it.

It is easy to see that what we are dealing with here is something essentially different from the unification of a generic and a specific determination. For the genus cannot be actual unless it is combined with a specific attribute which determines it. The genus can be separated from the species only in thought.

In the cases of one-sided separability which involve *entia realia,* the separable part is said to be the subsisting [*subsistierend*] part. But the whole to which it extends itself is called the accident or thing-that-inheres [*Inhärenz*]. These expressions are not happily chosen and they often lead one to suppose, mistakenly, that they pertain to the relation of two distinct parts.[216]

Obviously, one and the same subsistent can subsist in many accidental wholes. For example, one who judges negatively about something can subsist in one who judges apodictically and in one who judges with evidence.[217]

8. Experience shows, however, that a subsisting part can itself contain a part that subsists in it. Thus one-who-thinks-of-something will subsist in one-who-judges-affirmatively; and one-who-judges-affirmatively, in turn, may subsist in one-who-judges-with-evidence.

Can this go on *ad infinitum?* In such a case it would be comparable to that of a continuum in which every part is in turn made up of parts. The case we are considering is essentially different. With the continuum we have only *one* series of specific differences, whereas here we would have an infinite plurality, for every part would necessarily belong to a different series. Such an assumption would be exposed to all the difficulties which arise in connection with the infinite *in actu.*[218]

And there is still another point. None of these accidental wholes would contain an ultimate, individuating difference. For that which inheres is individuated by that which subsists, and if the latter were not individuated in any of its parts, then there would be no individuation.[219]

Now, the ultimate subsisting part, the part that subsists without itself containing any part that subsists, is called the substance.

9. It is inconceivable that anything should contain a subsisting part without containing a first or primary subsisting part [*ein erstes Subsistierendes*]. But the converse is entirely conceivable: a thing to which nothing is related as being its subsistent may also be such that it is not a subsistent of any other thing. Strictly speaking, such a thing should not be called a *substance,* though it is like a substance in that it is capable of existing independently. However the use of the

term "substance" has been extended so that it now applies to things of this sort: even those who deny that God can have accidents speak of divine substance. The Greek expression *οὐσία* was, from the first, more suitable for this broader use.[220]

10. Bodies [*Körper*], are also substances which are not known to have accidents. The things we see, hear, smell are bodies, things that fill space. They are distinguished from each other in several series, in particular the qualitative and the local. Neither of these two series can fall away, and so both are series of substantial distinctions.

If a body – for example, our brain – were to think, this would show that bodies, too, can have accidents, and then we would not need to assume that man has a mental [*geistigen*] part. Otherwise we must assume that such a part is indispensable as substance of our thinking, and this could serve as proof of the existence of soul in the current sense of the word.[221]

C. SUBSTANCE AND ACCIDENT[222]

1. An *ens reale* may have parts which are united only in our thinking.[223] And it may have parts which are united in nature. We are here concerned only with parts of the latter type. We find such parts in *continua,* wherein smaller and smaller parts can be distinguished *ad indefinitum*. Here any part can fall away, while the other remains unchanged in every respect, except for its isolation.

2. There are, however, real wholes of another sort, with reference to which only one-sided separability is possible. The separability is like that which we find in the case of color: we can distinguish the concept color as part of the concept red, but that which distinguishes the red from other colors cannot be thought separately from the concept color. Thus, in the wholes in question, the part is separable from the whole, even though it is impossible to specify any other separable part which, together with it, makes up the whole. Suppose an atom were capable of thinking: then the thinking atom would be a whole which, if the atom ceased to think, would be reduced to one of its parts. But one could not at all say that its thinking could be preserved if the atom ceased to exist. Just as the concept red contains as red the concept of color, so the thinking thing would contain as thinking thing the nature of the atom.[224] If another atom were to think the same thing, it would differ from the first not only *qua* atom but also *qua* thinking thing; as a thinking thing it would be individuated by the individuality of the atom. In such cases, the one part of the whole is said to subsist or to underlie the whole and thus to be its substance. The whole itself, in contrast to this part, is to be called an accident. (It would seem clearly wrong to call the other part an accident of the substance; for it cannot exist or even be thought of in separation. We are dealing here on the one hand with a substance, and, on the other hand, with a

whole which is the same substance enriched by an accident.)

3. A substance can be enriched by more than one accident. This would be the case if the atom we imagined to be capable of thinking were also to hear and to see at the same time. The unity of the substance would then unite the one who hears and the one who sees. Yet the one who hears could cease to exist as such while the one who sees persists unchanged; and conversely. Now it is perhaps incorrect to ascribe mental activity to an atom, but there is a non-spatial substance within ourselves. It is contained in us as the substantial part of the one-who-is-thinking, of the one-who-is-willing, of the one-who-is-seeing, of the one-who-is-hearing, and equally so in each case. This substantial part distinguishes our own hearing from the similar hearing of another person, and for each of us it unifies the one-who-hears, the one-who-sees, the one-who-thinks, and so on. This part is called the soul [*Seele*].

4. Whether bodies similarly underlie real accidents and thus constitute their substances is open to doubt, particularly if bodies are incapable of mental activity.[225] In any case bodies are not themselves accidents; rather they are such that each of their parts are separable from the others, and this separability is reciprocal. In this respect they are like substances and, we can say that like substances they are primary individuals [*Wesen*].

D. SUBSTANCE, SELF, AND SELF-AWARENESS[226]

1. What is meant by self-awareness [*Selbstbewusstsein*]? Generally the term designates a cognition [*Kenntnis*] which pertains to that which has the cognition. Sometimes the term is used in an extended sense to apply even to the erroneous opinions one may have about oneself.

Every cognition is an accident, and whatever has a cognition is a substance.

Hence, instead of saying that self-awareness is a cognition which pertains to that which has the cognition, one can also say that self-awareness is a cognition which pertains to that substance which has the cognition as a property.

When I say that self-awareness pertains to the substance which has it, I am not saying that it pertains exclusively to that substance. For example, if one person is aware of having carried out the duty that he has with respect to another person, then this awareness is an instance of self-awareness but it is not restricted to the one substance. It pertains at the same time to the other person. And so far as the first person is concerned, the awareness pertains not only to his substance, but to certain opinions he has with respect to what is right and what is moral, as well as to certain inner and outer activities of his will. Again, if one is aware of belonging to a civilized nation, then this awareness is also an instance of self-awareness, even though it pertains to many things in addition to the substance whose property the awareness is.

But there is a two-fold way in which a thing may be said to be an object of awareness: it may be explicit and distinct or it may be implicit and indistinct. If one hears a chord and distinguishes the notes which are contained in it, the one has a distinct awareness of the fact that he hears it. But if one does not distinguish the particular notes, then one has only an indistinct awareness of them. In such a case, he does hear them together and he is aware of the whole which is this hearing and to which the hearing of each of the particular notes belongs; but he does not hear the whole in such a way that he distinguishes each of its parts. Particular hearings of particular notes are contained in the whole and he does not distinguish them.[227]

Self-awareness, too, is sometimes distinct and sometimes indistinct. If a person feels a pain, then he is aware of himself as one that feels the pain. But perhaps he does not distinguish the substance, which here feels pain, from the accident by means of which the substance appears to him. It may well be that animals have only an indistinct self-awareness. But in the case of man, the substance which thinks in him [*die in ihm denkt*], and experiences, judges, loves and hates, can be brought to awareness as a result of the frequent change of its accidents; the indistinct awareness is then replaced by a distinct awareness of the subject. One then grasps this substance as that which permanently underlies this change and which gives unity to its manifold character [*als das, was bleibend ihrem Wechsel und einheitlich ihrer Mannigfaltigkeit unterliegt*].[228]

2. But what we have said runs the risk of being misunderstood. And one may be led to object to it as a result of confusion about the concept of substance and the way in which we obtain it.

Some confuse the relation of substance and accident with that of thing in itself and phenomenon. The result is that they then say that the thinking and willing which we perceive in ourselves is not something accidental, and yet (because of the immediate evidence with which inner perception grasps its object) they can say no more than that such thinking and willing is not a mere phenomenon.

3. Others, who have avoided this confusion, have not always succeeded in making the correct distinction between substance and accident. This was true of Aristotle. He saw correctly that, when we grasp ourself as a thinking thing, then we do not grasp our substance for itself alone; we grasp it with an accident, which sometimes holds of our substance in the course of its manifold changes and sometimes does not hold of it. But in the case of that which is presented to us in outer perception, Aristotle falls into error. He assumes that the qualities, quantities, and spatial differences which appear to us here are presented as accidents which belong to a substance; the substance may acquire them at one time and lose them at another time, while remaining itself the same. But think of two points which appear at the same time in our visual field, one red and the other blue. If we ask what it is that distinguishes the two points, the only answer can be

this: they are distinguished by the places they occupy and by the qualities that fill those places. Suppose the red point leaves the place where it had been, and the blue point becomes red and moves to the place the red point had occupied. Then the blue point would become precisely that thing that had previously been there. And if the red point which had been there earlier moves on to the place where the blue point had been, then this place would contain, without any discernible distinction, precisely what had been there prior to the transformation of the colors. And if now the red point becomes blue, the other place will also contain individually the same thing that had been there before. The previous red point and the previous blue point would have been individually transformed, the one into the other. This shows that *red* and *being here* are substantial differences, not accidental differences.[229] The psychical case is entirely different. The sensations, judgments, and emotions in two persons may change in such a way that, after the change, the one thinks and feels just in the way in which the other had thought and felt before the change. But one thinker does not thereby *become* the other thinker. Each thinker remains the same individual he had been before, but now having different properties. Such properties can be multiplied (as when a person hears and smells and has certain temperature sensations). And any one or all of these properties can fall away without replacement (the person may, successively, cease to hear, cease to smell, and cease to have the temperature sensations). But it would be contradictory and inconceivable to speak of a bodily thing [*ein Körperliches*] which had no kind of spatial determinant and no kind of quality which fills up space. Why is this? It is only because spatial determinacy along with the property of filling up space are substantial bodily [*Körperliche*] differences. If it should turn out, as some believe, that a bodily thing had sensation, then its sensing could fall away, just as our thinking can, without affecting the existence of the individual or resulting in substantial change.

It is true that Descartes had held that it is essential to a thinking being that it actually thinks, and he was audacious enough to hold that one never sleeps without dreaming and that one is never in a state that is completely unconscious and entirely devoid of thought. But he was not justified in holding this. If our individuality were conditioned by our thinking, then we would become a different individual each time we thought of a different thing. To be sure, if we thought of nothing at all, then we would have no self-awareness, for self-awareness is a kind of thinking. And in such a case one would not be able to speak of the persistence of the self [*Selbst*], for a substance may be called a self only when it has a cognition which pertains to itself. But this is not to say that, if the substance ceased to think about itself, then it would cease to exist. And this latter point is what is essential in the present context.

4. We have seen that substances as such belong to the objects of our experience. We are justified in saying, then, that the concept of substance is derived from

experience and is by no means given to us *a priori*. Outer perception presents us with bodily [*Körperliche*] substances specified in many different ways. These substances are differentiated in two lines, of which the one can be called spatial and the other qualitative. Ascending in these two lines from the specific to the more general, we arrive at the concept of the corporeal as being that which in some manner or other fills some place or other [*Begriff des Körperlichen als eines irgendwie irgendwelchen Ort Erfüllenden*].

This shows how erroneous one of the doctrines of Aristotle is. I refer to the doctrine according to which substance can be specified in only a *single* line and any intersection of differences is impossible. Because of this error Aristotle could not give a satisfactory account of the principle of individuation. He was prevented from seeing that what leads to individual determinacy is a unification of the ultimate specific differences belonging to different lines of predication.[230]

There are still other serious imperfections in his theory of categories. One of these is his failure to take account of the fact that there can be accidents of accidents as well as accidents of substance. The effects of this oversight may even be seen in Leibniz's doctrine according to which causal activity can be ascribed only to substances.[231]

If one judges with evidence, then it is the case, not only that a substance is the subject which inderlies the judging, but also that this judging is the subject which underlies the evidence.* Perhaps one can also says that, in every case of judgment, the substance is in the first instance the subject underlying a presentation; the latter is an accident which is, in turn, the subject underlying a belief.[232] If one wills something as a means to an end, then it is not the substance alone that brings about the willing of the means; it is the substance in conjunction with the willing of the end and with certain cognitions pertaining to what conditions what. We correctly use the word "motive" for the choice of means.[233]

5. If so-called outer perception presents us with the concept of substance, not merely in general, but also as specified and individuated, then the question arises whether the same may be said of inner perception. One thing is certain: inner perception does present us with substance as specified in a certain way. Substance is presented to us without any spatial determination, without qualitative determination, and without shape or extension. Hence it is presented without any specific corporeal determinations. But the absence of these features does not mean that we are presented merely with the general concept of substance. For there is a kind of positive substitute for these corporeal differences. We perceive the substance as that which is without any dimensions [*ein Nulldimensionales*] but which, un-

* [The word "underlying" has been inserted in several places in this paragraph to make clear that Brentano is here taking "subject" to mean the same as "subject of accidents" and not to mean the same as "subject-matter." Tr.]

like a point, is not a mere boundary: it is perceived as something which exists as a thing for itself [*ein Ding für sich*] without any dependence upon any other thing. The newer mathematicians sometimes calculate constant quantitative ratios by means of a hypothetical four-dimensional object which is surrounded by three-dimensional boundaries in the way in which a three-dimensional boundary is surrounded by surfaces that are extended in two dimensions. These three-dimensional boundaries, being mere boundaries, would not be bodies, since a body is a thing for itself. The same thing holds of a nulldimensional substance as contrasted with a spatial point. And so, in the case of inner perception, the substance which has the perception appears to us, not merely as substance, but also, in contrast to that which is corporeal, as mental substance [*geistige Substanz*]. In other words, it is presented as a substance which, although it is unextended, is a thing for itself and not a mere boundary.[234]

6. It is only by comparing this mental substance with the corporeal substance which appears to us in outer perception that we can arrive at that highest abstraction which is the entirely general concept of substance. This concept encompasses those substances which are three-dimensional, spatial, sensibly qualified things; and it also encompasses that mental substance, which appears to us as the subject of those accidents which are our psychical activities and as lacking all extension without thereby being a mere boundary.

Given what we have said, the following is obvious. If there is no contradiction in supposing that there are substances of *any* number of dimensions, then such substances can no more be said to be four-dimensional or multi-dimensional *bodies,* than bodies can be said to be three-dimensional minds, or minds null-dimensional bodies. We would have species of substances coordinated alongside the bodily substances and the mental substances.[235]

7. If inner perception, like outer perception, presents us with a substance, not merely in general, but also specified, does it also present us with this substance as individuated? If it did, then inner perception would be even closer to outer perception. In the case of the red point presented in outer perception, we found that, as a result of the unification of ultimate spatial differences and ultimate qualitative differences, it was not merely specified but also actually individuated. And when we speak of our self, we intend not merely the concept of a substance in general, but also a particular individual falling under this concept, and we say that this individual at one and the same time senses, thinks, loves and hopes, hates and fears.

But we are not capable of citing a substantial difference which distinguishes our self from that of another person. All the laws of psychology hold as much for the one substance as for the other, and this fact speaks against the assumption that what we think of when we think of the one and what we think of when we think of the other are related in the way in which red and blue are related.[236]

Moreover, we do not perceive any other self directly; we infer that there is such a thing on the basis of an analogy with our own self. If now, when we perceive our own substance, we were to perceive it as individuated, we would not be able to believe that this same individuation also holds of the other substance. We would be contradicting ourselves, if we were to assume that one and the same individual is duplicated. We would be saying that the other individual is identical with our own self; but this is by no means the case, since it may often happen that the one individual hates the other and takes pleasure in tormenting him.

Aristotle once said that, if white were the only color we ever saw, then we would be unable to distinguish between white and colored. Could one say that the present situation is similar – since we have only the perception of our own self, we are unable to see the distinction between that in our perception which individuates this self and that which it has in common with others? No, for if there were an individuating difference, it would be impossible to assume that there could be a multiplicity of things for which this difference holds.

And so we have no alternative but to assume this: when we grasp ourselves in inner perception, we grasp the substance of our self not merely in general but specified as a mental substance; but we do not grasp this substance as individuated by ultimate substantial differences.[237]

8. How are we to explain the fact, then, that each of us is conscious of himself as being a determinate individual and as being the one individual substance that underlies all our psychical activities?

My answer is this. Whatever is can exist only as individuated; hence we know that, if we are a substance, then we are an individuated substance. Moreover, we know that we are a substance which we perceive with evidence. But no thing can perceive *another* thing with immediate evidence.[238] If we think of the thing perceived as causing an appearance, then nothing would guarantee that the appearance is completely similar to the thing that causes it. But if now a thing can have immedate evidence only of that which is identical with it, then it cannot have immediate evidence with respect to a multiplicity of things; hence we see that we cannot be a collective [*Kollektiv*] of things but must be a single thing [*ein einziges Ding*]. And so it is not necessary that we be able to grasp our individual difference in its uniqueness. We see that one and the same mental substance must underlie all the psychical activities that fall within our inner perception. And this substance, to the extent it has an awareness of itself, is that which we call our self or our *ego* [*Ich*].

9. I have said that our self appears to us as a mental substance. I now add that it appears to us as a pure mental substance. It does not appear, say, as a substance which is mental with respect to one part and which is corporeal, and thus extended in three dimensions, with respect to another part. I emphasize this expressly, for the contrary has been asserted by important philosophers – for exam-

ple, by Aristotle in ancient times and by many present-day thinkers who have been influenced by his opinion. One of his best arguments was this:

No extended substance can have unextended accidents, and no unextended substance can have extended accidents. Now the thinking of general concepts is unextended; hence the substance which is the substance of this thinking is unextended. But the seeing of a picture is extended in the way in which the picture itself is extended, since to every part of the picture there corresponds a unique part of the seeing. Therefore the substance which underlies the seeing as its subject is extended insofar as it does underlie this seeing. But since our thinking of general concepts and our seeing of the picture fall within one and the same consciousness, it follows that the substance which constitutes our self is partly unextended and partly extended, partly mental and partly corporeal.

The argument is easily refuted. It is true that an extended thing cannot be subject of unextended accidents. To affirm the contrary of this would be just as absurd as it would be to say that a multiplicity of substances can each have as a property one and the same individual accident.[239] If a multiplicity of substances think, then their thinking cannot be individually one even if they all agree in their thought. To say that many accidents hold of *one* substance is not absurd; but to say that *one* accident can hold of many substances is absurd. And similarly, to say a complete continuity of accidents holds of an unextended substance is not as absurd as it is to say that a noncontinuous accident holds of a continuity of substances.

Further investigation will show that continuity cannot be ascribed to the seeing in the same way it can be ascribed to a body. And if we speak of a multiplicity of accidents in a single subject, the word "multiplicity" does not have the same sense that it does when we speak of a multiplicity of substances. The latter case has to do with a collection of unitary things [*Einheiten*], each of which is completely different from all of the others. But in the former case, all of the accidents contain the same unitary substance by means of which they are individuated. One and the same thing may think a, b, and c; this situation does not involve three thinkers in the same sense as does that wherein one thing thinks *a,* a second thing thinks *b,* and a third thing thinks *c.*

To be sure, there were still other considerations which led Aristotle to think that the substance of our self, to the extent that it has sensations and affections [*Affekten*], cannot be mental in the way in which the substance that underlies our higher thinking and loving can be said to be mental. These sensations and affections we have in common with the animals; and it would seem that, if in the case of the animals, the substance insofar as it is the subject of such activities must be corporeal, then the same thing would be true of ourselves. And Aristotle thought that the corporeality of substance in the case of the animals was proved by this fact: an animal can be naturally or artificially broken up into several different

animals, each having its own sensations and desires. But it can be shown that the facts in question do not provide the secure proof that Aristotle thinks they provide, and there are many other hypotheses which suffice to explain them.[240]

10. If we consider now the conditions under which self-awareness arises, we see that, since self-awareness has many different forms, the conditions will be quite different in the various different cases. Thus, if one speaks of a completely distinct and not merely implicit awareness of the self – that is, of a subject which has such knowledge of itself – then it is clear that no one has such awareness without knowing that a single substance has all his psychical activities as its properties. It is also clear that self-awareness, taken in its widest sense, is always incomplete. Who can remember everything that he has experienced, and who can know all of the different things that pertain to him? We know that special conditions must be fulfilled if something which has been forgotten is to be recalled once again. It is only by trial and error that experience teaches us of our skills and talents. Nevertheless, if one thinks of anything at all, then one is not completely devoid of self-awareness. For if he thinks or senses distinctly, then at the same time he is distinctly aware of himself as one who is sensing or thinking. And if he thinks or senses indistinctly, then the self is comprised in a larger complex which is at least apperceived as a whole, even if not in respect to its relevant particular parts. In such a case one has a confused self-awareness with no distinction of the relevant particular psychical activities. And so it would be extremely inaccurate to say that one cannot be aware of one's self without an active participation of the will. Such a statement readily leads to error. But it is undeniable that to the extent that the will does exercise control over our psychical activities, it can sometimes bring to distinct self-awareness what had previously been only implicitly and indistinctly given in our awareness. This happens, for example, when we concentrate upon a problem, or when, in trying to remember, we are able to raise the incidents of our earlier experience from mere habitual awareness to distinct self-awareness; and the knowledge of these incidents, of course, belongs to our self-awareness. It is clear, moreover, that there are still other ways in which the will may contribute to the awakening of a more nearly complete awareness of the self. We have already spoken of the method which is to be used in order to distinguish the mental substance, the bearer of our self-awareness, from all its accidents. And this much was established beyond all doubt: we are aware of our mental substance with respect to this general concept, but we cannot bring our self-awareness to such a degree of perfection that we also apprehend our substance intuitively with respect to its specific and individuating substantial differences.[241]

11. The ancient Greeks distinguished between acquaintance *per se* and acquaintance *per accidens*. We may recall the well-known sophism: "Do you know who the man in the mask is?" "No." "Then you don't know who your father is,

for the man in the mask is your father." Naturally we can also speak of a self-awareness *per se* and of a self-awareness *per accidens*. Thus one could be told of some experience that he had previously had, without being told that it was he who had the experience. In this case, he would have knowledge that pertained to himself without knowing that it pertained to himself – that is to say, without knowing that the one to whom it pertained is identical with his own self. What we have been saying above is concerned only with self-awareness *per se;* it is not difficult to see what should be added about self-awareness *per accidens*.

III. RELATIONS

A. ON THAT WHICH IS RELATIVE TO SOMETHING
(8 JANUARY 1915)

1. "That which is relative to something," I believe, is the best rendering of the Greek πρός τι. Then the expression "relation" stands to "that which is relative to something" in the way in which an abstractum stands to the corresponding concretum.

One question that now arises is whether we are here concerned with an expression which is synonymous or one which is homonymous. In other words, does everything to which this expression can be applied fall under the same unitary concept?

Another question is whether relativa are to be included among *entia realia* or among the so-called *entia rationis.*

Again, there is disagreement with respect to the question whether the truth of a relative attribute always requires the existence of the terminus of the relation.

And there is the further question whether all relative determinations are accidents or whether some of them are also substantial.

It may be that the answers to some of these questions will not be the same with respect to everything that is relative. Hence it is necessary to survey the most important classes of relativa.

2. That relativa fall into several classes, each with its own distinctive characteristics, has been known since antiquity. Aristotle distinguished these classes: those involving comparion; those involving cause and effect; and those involving thought and its object. Whether his classification is exhaustive remains to be investigated.

3. So far as concerns the question whether relativa are *entia realia,* some are inclined to answer this in the negative and to count relativa, along with abstracta and negativa, as *entia rationis.*

Leibniz, for whom every multiplicity of things is an *ens rationis,* looked upon relativa as being essentially objects of thought [*als Gedankendinge*]. They exist eternally in God, as objects of his thought.

Aristotle does not go this far, but he describes the category of relation as being that which, of all the categories, is the least a being. He takes the following to be an indication of this fact: a thing may take on or lose a relative attribute without itself changing in any way. Thus if Titus grows, then Caius may cease to be taller

than Titus and begin to be shorter than Titus. Or a man who has judged correctly with respect to an object may persist in his judgment after the object itself has changed and his judgment will then cease to correspond with its object.[242]

4. How does one tell that a relation has ceased to obtain? The usual answer is this: the relation ceases to obtain as soon as the terminus of the relation ceases to be. One then appeals to the doctrine of Aristotle, according to which the truth of a relative determination requires the existence of the terminus.

5. But is this doctrine true? Aristotle himself allows one exception, for he says, with respect to one of the classes of relations, that the relation may obtain without there being any actual correlate. Here he is speaking of the relation of thought to its object. That which is an object of thought [*das Gedachte*] is merely an *ens rationis*. When we consider such relations, we see that we must deny what Aristotle says of the other relations – namely, that the relative attribute can come into being or pass away without there being any alternation in the subject. To be sure, the object of the thinker's thought need not exist. This is obvious in the case of a thinker who rejects something with evidence, for this case rules out the being of the thing denied.

6. Should we conclude on the basis of such considerations that thinking, in so far as it is thus directed upon an object, is *not* a relativum – not a thing which is relative to something? Then we could not say, of two things one of which is earlier than the other, that they stand in a temporal relation. For necessarily one or the other does not exist. If the later thing exists, then the earlier is no more (it was), and if the earlier thing exists, then the later thing does not yet exist (it will be).

And what of comparative relations? Aren't a million men always less than a billion men, whether or not this many men actually exist? Here, too, we fail to have a case where the relativum may fall away without any alteration in the subject.

Causal relations are similar. Consider above all the efficient cause and its effects. As is well known, one speaks of indirect causes, and such causes, usually if not always, precede their effects in time.[243] Thus we find something similar to what we had found in the case of comparative relations. For example, one may say that an insult is the cause of an act of revenge. In this case, the cause is said to be something which lies in the past and thus no longer exists; hence the effect appears to be related to something which does not exists.[244]

And so we are confronted with the following options. On the one hand, we could say that the cases we have discussed are not really instances of relations. Then we would not speak of mental relations [*Denkbeziehungen*] or temporal relations or causal relations. On the other hand, we could drop the thesis according to which all relations require the existence of the terminus as well as that of the fundament. Actually, there are many who would assert, in opposition to Aristotle,

that relative attributes never require the existence of that to which they are related.

7. How is the matter to be decided?

The question is easily answered if we take care to avoid mere verbal disputes and if we attend to the distinctive characteristic which holds of all relational thinking. Whether this thinking is merely presentational, or whether it involves judgment or emotion, it always involves a multiplicity of presentations [*eine Mehrheit von Vorstellungen*], a presentation having different modes. One thing is thought of *in modo recto* and another *in modo obliquo*.

The thing thought of *in modo recto* must exist, if the relation is to exist. But the thing thought of *in modo obliquo* need not exist – except in such special cases as that of a knower, for a knower of a thing cannot exist unless the thing that is known by him also exists.[245]

Thus we have succeeded in finding the unitary concept for everything that is relative: when we are concerned with that which is relative to something else, we are concerned with nothing other than determinations which are such that, in thinking of them [*indem man Sie vorstellt*], one thinks of something *in recto* and of something *in obliquo*.*

8. There remains the further question whether certain things may fall under this concept which Aristotle had not considered.

Leibniz – at least at first consideration – seems to have diminished the number of types of relation. He distinguished two principal classes: *"relations de convenance (et diversité)"* and *"relations de concours,"* which we may call, respectively, "relations of agreement and difference" and "relations of contribution." These are unmistakably two divisions of Aristotle's classification, for the relations of contribution correspond to those which involve causation. Leibniz includes the following among such relations: relations of cause and effect; relations of ordering (here he means obviously means and ends, for these involve an ordering with respect to ends); and relations of part and whole. With reference to the latter, we should recall that, according to Aristotle, ends or goals as well as matter and form are to be designated as causes, and that matter and form are both parts which together contribute to the being of a compositum. (He held that matter is potentially a real thing and he said that the parts of a unitary whole exist only po-

* Should we say that whenever anything is apprehended *in recto* then something is apprehended *in obliquo?* This seems doubtful. Consider what happens when we apprehend someone who accepts a contradiction. We would have to say that the contradiction is thereby apprehended and hence is true. But it is true only in the sense in which one speaks of "phenomenal truth." Thus if I see something red, then I am the one who sees and am apprehended *in recto;* the red thing, however, is not strictly apprehended but is said to have only "phenomenal truth," an expression which is justified only to the extent that the thing can be said to be "apprehended *in obliquo*."

tentially.) One sees how similar the doctrines of these two great thinkers are with respect to these points. It may well be that when Leibniz spoke of parts he was thinking of those actual things which are the preconditions of any multiplicity which is made up of them.

Actually, the Aristotelian table of relations needs to be extended. I am thinking here of the special relation which holds between a boundary and the continuum which it bounds. There is no doubt but that the boundary as such is something. Indeed that which exists in time exists only as a boundary. But just as it is certain that there are boundaries and that they must be included among things, it is also certain that a boundary is not a thing existing in itself [*nicht etwas für sich Bestehendes*]. The boundary could not exist unless it belonged as a boundary to a continuum. Hence it would seem to be the case both that the continuum is conditioned by the boundary and also that the boundary is conditioned by the continuum. Indeed, the boundary is conditioned in its nature by the continuum; thus a point differs in kind depending upon whether it belongs to a circle or to a straight line that is a tangent of the circle. We have here a certain way of being conditioned; it is not the kind of conditioning that takes place when a whole is conditioned by its parts, or when an effect is produced, or when something comes into being as a result of transformation.* We are dealing here with a unique type of causal relation, which we may call the relation of continuity [*Kontinual-relation*].[246]

9. One of the characteristic features of the relation which a boundary may bear to a bounded continuum is this – that the boundary can be a boundary in more or in less directions. I refer to this distinction as one of *plerosis*. A temporal boundary must be a boundary either in one direction or in two directions, but a spatial boundary admits of innumerable quantitative distinctions with respect to plerosis. It is also clear that the plerosis of a boundary varies, not only with respect to quantity, but also with respect to the direction and position of the bounded continuum. Consider the midpoint of a circle and suppose that three of the quadrants of the circle are removed. As each quadrant is removed the plerosis diminishes and the point becomes a boundary in fewer directions. Galileo was calling attention to such differences of plerosis when he made the paradoxical re-

* It would be more plausible to compare the conditioning of a whole by its parts with the conditioning of the continuum by its boundary than with the conditioning of the boundary by the continuum. The conditioning of the continuum by its boundary is a case of dependency. It is preposterous to believe, as some do, that there could be a finite line without an end point, or a circular surface without circumference or a sphere without a surface. The difference between what we have here and the usual cases where a part contributes to the whole is that, in the latter cases, the part is something for itself [*etwas für sich*] whereas, in the present case, the part exists only as belonging to something else [*nur in Zugehörigkeit zu anderem*].

mark (which is actually not absurd if correctly interpreted) that the midpoint of a circle is as large as its entire circumference.

This distinction, then, along with the number of directions in which the boundary bounds the continuum yields differences in the *plerosis* of a boundary. And in a similar way distinctions with respect to the speed [*Geschwindigkeit*] of the variation of the continuum yield differences in the *teleiosis* of the boundary. Thus so long as a body is completely at rest it exists during each moment in complete teleiosis with respect to its spatial determination. That is to say, at each moment it exists as the temporal boundary of a continuum which did have and will continue to have the same spatial determinations. Contrast now a body that is moving along a certain path and in the course of this motion occupies the same position that the body at rest had occupied. The spatial determination which the body thus acquires is one that it immediately loses; it holds of the body as belonging to a continuum which takes on other spatial determinations in the same transitory way. The nature of that which is bounded is different in the two cases, and since the nature of the thing conditions that of the boundary, the nature of the boundary cannot be the same in the two cases. We are here concerned with the distinction between complete and incomplete teleiosis. The greater the speed of the variation, the less the degree of teleiosis.[247]

10. Once we have been able to survey the most important types of relation and have explicated the general concept of a relation, we will want to return to the questions formulated above (in Section 1) and consider those that have not already been answered. We had asked in particular whether relativa are to be counted among the *entia realia*.[248]

Leibniz had held that they are *entia rationis,* existing eternally in God and, obviously, as thought of by God. But discourse about the eternal existence of relations in God involves both obscurity and error. Thus one must ask: if actual existence is to be ascribed to objects of thought, do not absolute (non-relational) things also exist as thought of by God? Why this special status for relations?

The answer may well be found in the fact that Leibniz misconceived the negative character of such statements as "2 is less than 3." If he took them to be positive, then he had to assume that they express the positive existence of relations and that they belong to the realm of "eternal truths," which for Leibniz, like Augustine, have their being in the mind of God. The grounds for this assumption disappear once we interpret the quality of such judgments correctly. What does it means to say, "It is an *eternal* truth that 2 is less than 3"? It means, obviously, that I am not restricting myself to the apodictic assertion that there *is* no 2 and no 3 without 2 being less than 3; I am also saying that there never *was* and never *will be* such a 2 and a 3.

The same thing may be said of Leibniz's doctrine according to which possibilities, being eternal, exist in God. If I say that a sphere is eternally possible, then

my assertion, that it is not impossible, is not restricted to the present, but implies that the sphere is not impossible in any past or future time.

Moreover, once Leibniz made the error of assigning eternal being to possibility, he should have held that it exists eternally *outside* of God. For example, if a sphere, when it exists, exists outside of God, then, as long as it is possible, it is possible outside of God. But Leibniz was not so unreasonable as to think that the possibility of a sphere is an *ens reale;* as a being of thought it requires an intellect which would think it. Anyone can see, however, that the whole assumption is pointless,[249] and the error on which it is based should have been caught at the outset.*

11. The other motive for supposing, erroneously, that relativa are not *entia realia* was the doctrine according to which relative determinations can be lost without there being any alteration in the subject. This doctrine, in turn, was based upon the further doctrine according to which all relations have two terms, or, in other words, that all relations require the existence of the so-called terminus. But we have seen that this latter doctrine is false. In order to remove the error once and for all, let us consider the grounds upon which it is based. First of all, we should consider the complex nature of relative thought. This fact has already been noted. Such thought involves a multiplicity of ideas, and these ideas may be said to have different modes in that one thing is thought *in modo recto* and another thing *in modo obliquo.* The duality of mode and object leads to the mistaken belief that there is also such a duality of things. But actually, if the relativum is to be, it is necessary only that that which is thought of *in modo recto* exist. That which is thought of *in modo obliquo* need not exist – except in very special cases (for example, there cannot be a person who judges with evidence unless the thing which is the object of his judgment exists).[251]

12. There is still another consideration which contributes to error. In many cases the linguistic expressions in which relativa are affirmed involve more than the statement of what is relational; they may also express the affirmation of some entity other than the thing that is thought of *in modo recto.* This is what happens if I say "Caius is taller than Titus" which comes to the same thing as "Caius is taller than Titus *is.*" Just this fact, that an assertion is here being made about something other than the subject, leads one to suppose that the relative attribute could be lost without there being an alteration in the subject. But this illusion is dispelled once we have brought into clear focus just what a relative attribute is.

* If Leibniz had been asked whether we ever have clear ideas of *entia realia,* he certainly would have said that we do have such clear ideas and even that God, at least, was adequate ideas. But then it would have been easy to convince him that he was mistaken with respect to the reality of relations. For no *ens reale* can be brought into clarity if there are not relative determinations. To have a clear idea of a thing, it is necessary, not only to apperceive the part in the whole, but also to recognize it as a part.[250]

There is no ground, for denying this point: the relative determinations that we attribute to things are like the absolute determinations in being *entia realia.*[252]

The point holds in particular of comparativa. If we disregard what appears in them as a *denominatio extrinsica,* then what is left is only a more or less indeterminate idea.[253] We may say of them what we may say of universalia in general: the indeterminate character which distinguishes them from individual determinations does not impair their character as *entia realia.*[254]

13. We had also asked whether all relative determinations are accidents. If there are collective determinations [*Kollektivbestimmungen*], then everything would seem to speak for the fact that there can be relative substantial determinations. This is what we would have if one were to say, for example, that oxygen is by nature different from hydrogen or that water is a compound of different elements. Aristotle held that all relations are accidents and said indeed that a relativum is least of all things a substance. Why so? Evidently he held this because he thought that the relative determination, which may be attributed to a substance, could lose its truth without there being any change in the substance to which it is attributed. Thus, when Anaxagoras dies, Socrates ceases to be specifically the same as Anaxagoras, and yet Socrates himself does not change with respect to being a man or with respect to any of his other absolute determinations. (In this case, obviously, the humanity in Socrates is taken as the fundament of the relation and the humanity in Anaxagoras as the terminus.) But we should note that the determination of Socrates as being the same in species as Anaxagoras coincides [*zusammenfällt*] with the determination of Anaxagoras as being the same in species as Socrates, and that these in turn coincide with the following determination of the collective which is made up of Socrates and Anaxagoras: that of being the same in both of its parts with respect to humanity. We see, then, that the subject of the real determination is strictly the collective substance [*die Kollektivsubstanz*], and it is obvious that only a substantial change in this collective substance can cause it to lose this determination. So what we are dealing with here is strictly a linguistic variant of the same thought.[255]

B. SAMENESS AND DIFFERENCE AND HOW WE APPREHEND THEM
(20 JANUARY 1916)

1. Sameness and difference are relative determinations. As with other relative determinations, they may involve a comparison with a general concept, which does not exist but is only the object of our thought; or they may involve a comparison with particular things which exist actually [*tatsächlich*] in some temporal mode. But the temporal mode is usually not made explicit unless it is other than the present.[256]

In the case where comparison is made with a general concept, the existence of a thing corresponding to the concept is not required; hence the comparative relation would seem to be one that can be apprehended *ex terminis*.[257] The thing that has the comparative attribute has it necessarily. The assertion that the thing could exist without corresponding to this relative determination would be absurd.

2. But when we apprehend the subject and then consider the relation of sameness or difference in which the subject stands, we do not grasp this relation with direct evidence. It is well known that we are often uncertain or deceived when we ask ourselves whether one note or many notes are given in a certain chord, or when we ask how many tactile sensations are involved when we touch a round object with the fingertips.[258] In some cases, one may feel completely certain, but where does this certainty begin? One thinks that there is no room for doubt, but isn't the supposed certainty in these cases merely imaginary? Consider, for example, the strength of the optical illusion that is produced by such things as Zöllner's lines.

Consider also the fact that direct evidence is not capable of degrees. Probability applies to what is apprehended indirectly but not to what is apprehended directly.[259]

3. In contrast to outer perception, inner perception is always evident and therefore infallible. Can we say the same thing of inner comparisons, then? In other words, can we say that, although in the case of the objects of outer perception we have no direct evidence of the comparative relations that hold between them, we do have such direct evidence in the case of inner perception? Not at all. If the object of a mental relation changes then the relation changes. The certainty or uncertainty that we can have with respect to the objects of comparative relations holds with respect to the ways in which the corresponding mental relations are to be compared with each other. If there can be confusion in the former case, then there can also be confusion in the latter case. And so we cannot speak – at least not in general – of an evident apprehension of the comparative relations obtaining among the objects of inner perception.

4. Does this mean that every case of inner comparison is a matter of a blind instinct, similar to our trust in memory and our trust in outer perception? Or are some such comparisons evident? And if this is so, how is it possible?

It would certainly be going too far to say that we never have evidence in these cases. No one could fail to distinguish between hearing and seeing or be uncertain of the correctness of the distinction between them. Similarly for the distinction between hearing and a sensation belonging to the third sense.[260] Nevertheless the distinction is not always made. Thus we have a case of confusion when it is thought that the feeling [*Affekt*] that is connected with a harmonious sounding chord is given as a part of the sound that is heard.[261] By contrast we are very often

uncertain and deceived in an area where there are degrees of difference. One speaks of a threshold of discrimination. The nearer the degree of difference is to this threshold, the more frequent are our false estimations. It also happens in these cases that our estimation depends upon something we have not brought clearly to consciousness. The estimation is not immediate; yet we are unaware of any mediating factors. Illusions of perspective are striking in this context; we attribute certain spatial relations to a thing and think that they are given in the visual sensation.

In short: one cannot say that there is *no* evident apprehension of comparative relations, but we must concede that in many cases our estimation is simply blind and thus not evident at all.

5. How do we come to know that one thing is *different* from another? The answer may be this: we know that each of the things exists; and we also know, with respect to a certain determination of the one and a certain determination of the other, that nothing can have both. In other words, we know that a certain determination of the one excludes a certain determination of the other, and this judgment would seem to be apodictic. The judgment that the two things are different thus appears to be compound. It is, in part, an affirmative judgment; but this affirmative judgment, in consequence of the apodictic negative judgment, extends itself to an assertoric denial – a judgment denying a certain determination of a thing – and so the result is a judgment which is no longer purely affirmative but is also in a certain way partly negative.[262]

6. The apprehension of *greater* and *less* appears to include an apprehension of the fact that a part of one of the things being compared is equal to the other thing. At any rate, this is true when we are concerned with magnitude in the strict sense. But it does not hold in such cases as that of a greater and lesser velocity. It is not true that, when one motion is twice as fast as another, then the first motion has as a part a motion that is equal to the second. Here we are dealing with ordinal numbers, as it were, which stand in a certain relation to cardinal numbers. The faster motion is related to the slower motion in this way: the distance that is traversed by the faster motion in a given time contains as a part the distance that is traversed by the slower motion in that time. Instead of saying that the first motion is twice as fast as the second, we could also say that it is half as slow as the second, meaning that the same distance is traversed in half the time. Here the one time appears as a half of the other time.

But if one looks more closely, one sees that in the determination, greater and smaller, there is an implicit negation.[263]

7. Negation is also involved in the determination, "similar to." If one thing is similar to another, then they are two; therefore there is some difference or other involved even though the two things share the same general characteristic. For example, if there are two red dots, then, although the one is not the other, the

general concept red applies to both. As red they are similar to each other. A red thing and a blue thing, as such, are also similar to each other, but only to the extent that they are both colored.

8. Comparison is absolutely indispensable to the abstraction of a general concept. For example, if we had only the color white and no other colors, then we could not abstract the general concept, colored thing, even though all white things are colored. The foregoing considerations seem to show, moreover, that negation is also indispensable to the abstraction of general concepts.[264]

C. SAMENESS, SIMILARITY, AND ANALOGY
(20 JANUARY 1916)

1. Aristotle holds that the term sameness has a different sense in each category. Thus if we speak of sameness in connection with the category quantity, then, according to him, we have the analogue of an agreement [*Übereinstimmung*] which is to be found in the category quality and which he calls *similarity*. In the case of substance, we have also only an analogue of agreement; we could call this "identity" or "being one and the same."

This doctrine appears to be untenable. Indeed Aristotle himself did not hold to it consistently. According to the *Categories,* the term "quality" itself has many meanings. Thus it has one sense when we call a shape a quality, and it has another sense when we call a disposition or a *habitus* (such as virtue or vice) a quality. And so the analoque of sameness in the case of the category quality has several different senses, and if we use the term "similarity" for all these senses then we will be using it quivocally.

2. Moreover, even if we restrict ourselves to the sphere of shapes, we must distinguish between sameness and similarity. Consider two circles having different radii: they will have different degrees of curvature, and so every angle that the one circle forms with a tangent will differ from the corresponding angle formed by the other. The set of these angles differs from one figure to the other (we here apply the concept *set* to that which multiplies itself continuously, thus taking it in an unusually general sense) and increases in accordance with the length of the periphery. But the situation is different when I compare the shapes of two circles having the same radius: here the contiguous angles are the same in number and quantity.[265]

Again, consider two equilateral triangles of different sizes: they do not agree completely with respect to shape. The ratio between the set of the extended angles to that of the number of angles of 60 degrees is different; for example, it will be doubled when the sides are twice as long.[266] The agreement with respect to shape is just as imperfect as is the agreement we would have in the case of two zig-zag

lines having equal angles but such that the lines are formed by straight segments differing in length or even in number.

3. One can also speak of complete sameness in the case of colors provided they are of the same ultimate species. Perhaps one may also speak of similarity (sameness-in-a-respect) in the case of colors that are so close to each other as to be almost indistinguishable, but the case would have to be one wherein each of the colors suggests the other. I speak of the case where the colors differ but, because of the fact that we cannot provide a separate name for each nuance, the colors have the same name. The sense of the word "similarity" in this case is not the sense that it has when we speak of the similarity of figures. Similarity in the latter sense seems to obtain in the case where we have two surfaces which are such that both exhibit a uniform transition from red to blue but one does so in a greater degree than the other. If I single out the places where each exhibits the same nuance of violet, then they will prove to be different. The difference will be like that of the directions of two circles such that one is inside the other and there is a tangent common to both at the point of contact.

Perhaps one could also speak of the similarity which obtains between these color-transitions and the curvature of a line.[267]

On closer examination, this type of similarity turns out to be the same as that which one calls *proportion* or *analogy*. And it would seem that analogies can be more or less close or remote. One could also find an analogy between the transition from black to white and that from red to blue. But the term analogy is used most appropriately when one compares beginning with beginning, end with end, and middle with middle, and when one compares the degree of variation of the magnitude of intervals between red and blue on the one hand and black and white on the other.[268]

D. ON THE CONCEPT OF EFFICIENT CAUSE[269]

1. The word "cause" is not always used in the sense of efficient cause. Thus one has also spoken of a final cause, of a material cause, and of a formal cause. Some have also spoken of a total cause which comprises the material and efficient cause along with negative determinations. But others would say that much of what is included in the total cause are better described not as causes but as conditions *sine qua non*.

2. Actually it is advisable to turn back to the original concept – that of efficient cause. There are those who would now ban the inquiry into efficient causes, but the concept clearly exists. Every civilized language has a term for it. And no one has any difficulty in using this term, even though one may find it difficult to say just what is meant by an efficient cause. The difficulty is similar to what Au-

gustine had noted with respect to the common conception of time. Even today psychologists are not in agreement with respect to the way in which they would explicate the concept; each one appears to be happier in criticizing the explications of others than in defending his own.

All of our concepts stem from concrete intuitions and any explication of concepts leads back to such intuitions. If we have unitary concepts that are taken from certain intuitions, then it is sufficient to represent them by means of examples. But where we have compound concepts, then one must analyze these into their characteristic marks and then find for each of these marks the corresponding intuition.

Locke thought that the concept of cause was a case of the former sort and that examples of it may be found in sensation as well as reflection. We find it in sensation, he said, when we feel that heat softens wax and melts it, or when we see a fire transform wood into ashes; and we find it in reflection when we notice that our will moves our limbs or affects our thought processes. But Leibniz questions whether a sensation *ever* exhibits a real causing (*faire*) in addition to a mere succession. And actually we don't notice such causation. Nor do we notice that our will moves our limbs – and of course it does this, not directly, but only indirectly by means of certain processes in the nerves of which we are not conscious at all. The same thing holds of what Locke said about the influence of the will upon our thought processes.

For all that, modern thinkers continue to speak of the will's influence as being something that we can perceive. Actually, however, what they refer to is not any resulting motion but only a feeling, which they call the feeling of an impulse of will – a feeling which is most readily noted in the case of special exertion. But actually all that we have here is a sensation together with an apperception of the act of will. Neither the sensation nor our apperception of the act of will presents us with a case of causing or of being affected. One overlooks the following fact in the case of willing. Willing is distinct from other desires in that it desires to bring about something and it *also* includes the belief that this is possible. Thus we may will to visit a friend, but we are not able to will that it rains or that the sun shines, however much we may *wish* these things to occur. In these latter cases what is lacking is the belief that we can exercise an influence. The phenomenon of willing, then, is not the *source* of our idea of cause; rather it *presupposes* this idea.

Hume, who subjected Locke's *Essay* to a penetrating criticism, held that the concept of cause is a compound concept taken from the elements of different intuitions. We note that one event often and without exception follows upon another; then we acquire the habit of expecting the second to follow upon the first; and then we refer to the first event as the cause and to the second as the effect. But this account, too, has glaring weaknesses. Thus Reid noted that it would require us to say that night is the cause of day. But of course night is not the cause

of day, nor is the whistle of the approaching train a cause of its arrival.

Hume's definition has been modified in many ways by subsequent philosophers. Mill said that the cause is the totality of positive and negative facts upon which the effect invariably follows. He assumed that each of the antecedent events was indispensable; none of them could fail to occur if the consequence was to be an effect of the total cause. He called the particular events "contributory." Yet nothing can be clearer than that he here misconceives the concept of causing. He is forced to say that even negative facts are contributory. But it is obvious to everyone that a non-being [*ein Nichts*] can't cause anything. A similar criticism holds of any attempt to construe the efficient cause as a regular antecedent upon which the consequent necessarily follows; for one has to include negative facts in the antecedent in order to exclude what might otherwise prevent the effect from taking place.

In contrast to Locke and Hume, Kant held that there are certain concepts which are not derived from any intuition at all. These are supposed to be the root concepts of understanding and they include that of cause. Many respected investigators in recent times have followed Kant in this respect. For example, Sigwart holds that the concept of cause is in a certain sense *a priori*. After we observe a continuous succession of things, we are compelled to unite them synthetically by means of a principle of unity of ground and then to think of them as being the cause of a thing. Contributing conditions include temporal contact and, in the case of physical bodies, also spatial contact. Then there is supposed to be a necessary connection which relates the effect to these contributory conditions and to the thing which is the cause.

There is no need at this point for a detailed discussion of the difficulties which such attempts involve. It is enough to say that they conflict with a doctrine which had been established by Aristotle and then again by Berkeley: namely, the doctrine that it is impossible to acquire a concept in any way other than on the basis of concrete intuitions. This doctrine has been sufficiently investigated and it is so secure that we are justified in rejecting forthwith any such *a priori* metaphysics.

3. And so we have no alternative but to resume our search for those actual intuitions from which the concept of cause is derived. We may do this with undiminished confidence in the possibility of success.

We need not go far afield to find these intuitions: otherwise the concept of cause would not be familiar to the ordinary man and would not be in constant use. Why, then, is it the case that so many competent investigators have not made use of these intuitions in attempting to explicate the concept of cause? The answer must be that some circumstance or other has prevented them from seeing their significance.[270] And this is in fact the case. Just as Locke had held, there are intuitions which enable us to grasp a unitary concept of cause and effect. But these are not to be found in the sphere of sensation; rather, they are provided in

abundance by reflection. We may cite four wide-ranging cases, two from the domain of judgment, and two from the domain of emotion.

The first case occurs whenever certain convictions lead to the inference of a new conviction; an example is a syllogistic inference. The second case is analogous: it occurs whenever a thing, which is indifferent in and for itself, is desired and favored as a means to some other thing. The third case belongs again to the intellectual sphere: it occurs whenever, as we say, our concept of a thing makes that thing evident to us. And the fourth case, again, is an analogue in the sphere of emotion: it occurs whenever our concepts enable us to see that an act of love is necessarily correct.

We will briefly elucidate each of these four cases.

I say first of all that whenever we make an inference, causation may be noted. We notice not merely that we think the conclusion after having thought the premises; we also notice that to the extent that we do think the conclusion we are causally determined to do this by our thinking the premises. And this does *not* mean that we are led to believe that in the past the thinking of the premises has been followed by the thinking of the conclusion and that it always will follow it in the future. We notice the causal determination the first time that we draw the conclusion. Ever so many other antecedents may be given in consciousness along with the thinking of the premisses. Perhaps we draw the conclusion while walking in the garden and experiencing all sorts of visual impressions. But it is only the thinking of the premises – and none of these impressions – which is apprehended as causally determining the thinking of the conclusion.

Let us now turn to the analogous case in the sphere of emotions. We wish for something and come to see that it is dependent upon another event which in and for itself is wholly indifferent to us; thereupon we come to wish for the second thing as a means to the first. What we notice is not merely that we come to desire the second thing after having desired the first; we notice also that the desire for the one thing causally determines us to desire the second.

Now let us look at the remaining two cases. The first has to do with those judgments which, as we say, are made evident by concepts. These judgments may be called direct apprehensions, if we understand this to mean that they are not inferred from other judgments. But we should not take this to mean that they do not have certain psychological presuppositions. They do presuppose an idea [*Vorstellung*] which connects a number of different characteristic marks, for they apodictically reject this connection. Consider, for example, someone who thinks of a round square and thereupon rejects it as impossible. Even here, I would say, we notice, not merely that we apprehend the round square to be impossible, but also that this apprehension is produced by the given idea. And so these direct insights are thereby essentially different from those directly evident convictions which are provided in abundance by the facts of (inner) perception. Although it is certain

that these perceptions do have causes, it is equally certain that these causes are not themselves perceived. It would be a mistake to look for their causes in some underlying idea.[271]

The observation of causation which we thus find in the intellectual sphere has its counterpart in the sphere of emotions. I refer to those acts of love – they may be simple acts of love or they may be acts of preference – which proceed immediately from the concepts. These are also cases where the activity is characterized as necessarily correct. I called attention to such cases many years ago and attempted to show that they constitute the foundation of all ethical knowledge.[272]

4. These are the intuitions, then, from which we derive the concept of causing. We then extend this concept hypothetically to the physical domain, where we are concerned to explain the regularity of certain empirical connections. A closer investigation into these causes will show that they are all cases of causation by means of accidents, but this does not prevent us from assuming, on the basis of analogy, a causation by means of substances, even though no object is presented to us which underlies these accidents.

Moreover they are all cases of simple positive increment [*Zuwachs*] and not transformations from one opposite to another.[273] But nothing prevents us from assuming on the basis of analogy that there is also causation of transformations. In the four cases we have cited above, the ultimate subject of both cause and effect is the same. But, again, nothing prevents us from assuming on the basis of analogy that causing and being affected also takes place where the subject of the one is not the same as the subject of the other. And causing does not always presuppose a subject that is acted upon.[274]

Leaving these details aside, we find a characteristic feature that is common to each case: we may speak of this as a matter of being affected or acted upon [*ein Gewirktwerden*].

5. As we noted at the outset, the term cause is not always restricted to efficient cause. Thus Aristotle spoke of a final cause, a formal cause, and a material cause. He also spoke of substance as being a cause of accidents, as well as being a cause of those dispositions which influence the specific nature of that which comes into being. Do these different cases all pertain to causation in the same sense of the word? Are they all species of one and the same genus? If they are not, then, since the homonymy could hardly be accidental, the different cases are analogous to each other.

Perhaps one can say that, whenever we speak of a cause, we are concerned with a thing which is such that without it a certain other thing, which is not immediately necessary, would not exist.* One may object to this definition on the

* The clause "which is not immediately necessary" is introduced in order to forestall this objection: the world cannot be called a cause of God even though in a certain sense God would not exist if there were no world.

ground that all things in the world reciprocally influence each other. Or one may object that, for any two things, no matter how greatly separated they may be spatially and temporally, each could be said to be such that, if it were not to exist, then the other wouldn't exist; for both are essential to carrying out the divine plan. This is true, but it is not a serious objection to the definition we have suggested. We do not commonly say that each thing is a cause of every other thing; but this is explained by the fact that one does not commonly enter upon the kind of philosophical reflection that leads to the knowledge of such general interaction.

Let us take this general thought, then, as our basis. If we ask now whether the concept of cause is a unitary concept, we must take care to exclude all the so-called causes which are not strictly things. Now one will find, for example, that what Aristotle calls matter is a fiction: for he thinks of it as something which exists only potentially but not actually. So, too, for what he called form or actuality: something that is supposed to be related to abstract terms in the way in which there are actual things related to concrete terms. And we cannot say that there *is* a thing which is the so-called final cause; for a closer examination will show that it is only an object of thought or an object of will and therefore that it cannot be said to *be* in the strict sense in which the thinking and willing person can be said to be. In these supposed cases of final causation it is the thinking and willing person that is truly and strictly a cause which brings about effects. These so-called causes which cannot strictly be said to exist do not correspond to the strict sense of our concept. So far as this strict sense is concerned, there remain the three following cases.

(1) The case where a thing as a part contributes to another thing as a whole. (An instance of this is the substance which is the bearer of its accidents.)

(2) The case where one thing acts upon [*bewirkt*] another.

(3) The case where a thing is itself transformed into another thing and thus conditions its coming into being.

We may say in general that these cases involve the same sense of conditioning or contributing. But the way in which conditioning or contributing takes place is so different in the three cases that one may readily overlook the fact that they all fall under the same genus.[275]

E. THE TEMPORAL RELATION BETWEEN CAUSE AND EFFECT[276]
(23 JANUARY 1914)

1. There is a twofold sense in which things can be said to be co-temporal [*gleichzeitig*]: they may persist together during a period of time; or the one may coincide with the other as beginning with end – that is, they may share the same temporal

boundary, which then constitutes the end point of the one and the beginning point of the other.

In the first sense the motion of a horse and of a wagon are co-temporal. In the second sense, a body may be said to be at rest at the same time that it is in motion – namely, at the moment at which it begins to move.

In those cases in the psychical sphere, where we directly experience causation, causing and being affected are obviously co-temporal in the first sense. Here a causation of a finite magnitude occurs and remains for a time either without changing at all or in a state of only infinitesimal change; during this time the causing and the being affected are co-temporal. The causing and the being affected are together from the very first moment; for it is then that the causing thing begins to cause and the thing that is affected begins to be affected. The cases of indirect causation make this co-temporality especially striking.[277]

2. This is true both in the psychical domain and in the physical domain. In the physical domain affecting and being affected are always co-temporal in the sense of persisting together. If an impact instantaneously produces a finite effect, then the effect persists through a period of time without change or with mere infinitesimal change. This may be elucidated by imagining the collision of two perfectly rigid bodies. The collision produces momentary immobility; the nearer and more distant parts of both bodies come to a stop at the same moment: the effect is direct upon the parts close to the point of impact and indirect upon the more distant parts. But if one of the bodies were annihilated when it reached the other with the result that the contact would not persist for the slightest duration, then the motion of the other body would not be affected.

3. This physical example is not like what we find in the psychical sphere, since it involves only a transformation from one opposite to another and does not involve a positive increment [*Zuwachs*].[278] It is this fact which has led some to deny the law of the co-temporality [*Zusammendauerns*] of cause and effect. Naturally opposites cannot exist together: they are co-temporal only in the sense of temporal contact (of sharing a temporal boundary). The nature of the opposition may be thought of as conditioning the nature of the effect,[279] and so one of the opposites is sometimes said to be "cause" of the other and one is then led into the error just referred to. But the error could be avoided by noting that "cause" cannot here be taken in the sense of efficient cause.

4. A further distinction between the physical and psychical cases is this: physical cases are subject to the law of the equality of action and reaction, but no such law holds of the simple increments that are to be found in the psychical domain.

Still another distinction is this. Conscious states always persist as long as their causes do; but this happens only sometimes in the case of physical effects – they will persist only when the action has been paralyzed by some simultaneous reaction. Consider a body which has been prevented from falling by a certain sup-

port. Without this reaction the continued activity of the cause (which gravity involves) would lead to a continuous transformation of opposites. There would then be a continuous succession of infinitesimal changes, the effect of which is cumulative. This is what happens in the case of a freely falling body.[280]

Where we have such continued causation the end state may be separated from the initial state by a considerable period of time; the final cumulative effect may then differ considerably from the initial affect. But this should not mislead us into denying that causing and being affected are co-temporal. They are co-temporal throughout every moment of the continuous process.[281]

5. In the case of undisturbed rest, the thing which is capable of transformation into an opposite is not altered by anything acting upon it. One says that it preserves itself, and in fact its earlier state does determine and condition the later state but without acting as efficient cause. The earlier state is merely a condition, just as it is in the case where the thing is altered. But in the present case, where the thing is not altered and where there is no further condition affecting an alteration, the earlier state alone conditions the effect. In this case where the one thing is only indirectly connected with the other, we do not have co-temporality. But where we have a direct effect, there will be co-temporality, as in the case of the complex inference producing an evident conclusion. The case is comparable to a continuous series of instances of causing and instances of being affected.[282]

6. This leads to the question whether every case of simple persistence-through-time [*Fortdauer*] that presents itself empirically to us is one of such continuous causation. The more one considers this question, the more inclined one is to answer it affirmatively. Quantity applies in the strict sense to duration, just as it does to spatial extension. Hence there must be a multiplicity of different parts and different points. But the difference cannot consist in the fact that one moment is past, another present, and still another future. For every point of time participates to the same degree in these temporal modes. Thus there must be an entirely different type of distinction, which serves to differentiate the time-point of a later event from that of an earlier event, but this other type of distinction may be entirely transcendent to us.[283] This other type of distinction must belong to a genus that is common to everything there is, and therefore it must apply primarily to substance and then be carried over to accidents. What is remarkable here is that the species must always be the same for everything which can be said to be. Hence it is completely uniform, for change is everywhere taking place continually. To the extent that it is a genuine alteration it would appear to presuppose an active principle, and to the extent that it is completely uniform it would seem to presuppose a unitary principle which acts upon everything in the world.

We are not dealing here with an accumulation of constantly recurring causings.[284] Everything points to the fact that the causings are related to each other in the way in which different spatial points are related to each other: no one of them

exceeds any of the others. But this can be explained only by the fact that the efficient cause that produces this general and necessary uniform temporal change is itself in continuous necessary change. Since its change is directly necessary, it has no cause. It can be shown that, if there is a God, it is itself in such eternal, immediately necessary change. And so the transcendent moment which separates the earlier from the later can consist only in this, that it receives its being [*Dasein*] directly from a corresponding moment of the divine life, a moment which constitutes a real substantial difference.[285]

7. One may contrast the foregoing with the attempt to explain the change of temporal determinations in some other way – whether this be without appeal to any active principle or whether it be by appeal to other active principles.

If the active principles are not the same, why is it that the time species is precisely the same for everything that ever exists? And if these principles are not necessary beings, whence comes the necessity of this uniformity and whence comes the necessity of the fact that all things undergo this change in equal degree?

If one does not appeal to an active principle, then one must explain the very strange consequence that a thing can undergo constant genuine alteration without any cause. It would not be as though there were a succession of determinations in a subject which remains given. For in the change of time everything is constantly given anew and so it is certain that there would be a continuous change of differences. If one holds that there is no active principle of temporal change, then one must ascribe to the thing that undergoes the change whatever one would ascribe in other cases to the active principle of the change. And each thing would function in exactly the way that all other things would function. But clearly any such complete correspondence points to a unitary principle for all things. If there is such a principle for the correspondence, then this will also be the active principle of temporal change. One sees, then, that so-called contingency is in fact nothing but the absence of immediate necessity – and the absence of immediate necessity does not exclude the possibility of mediate necessity.[286]

Nor does it exclude spontaneous activity.[287] Thus we have found cases of indirect causal activity which are co-temporal with the activity of the first cause, and we have seen that there can even be entire chains and continuous sequences of such causes.

F. THE TEMPORAL RELATION IN CAUSATION AND IN SELF-PRESERVATION[288]

(25 JANUARY 1914)

1. So far as time is concerned, the following relations are possible between cause and effect:

(a) When the cause is one which is *transforming* and is thus being exercised upon opposites, there may be *infinitesimally* continuous stages; then at every moment the causing thing and the thing that is being acted upon will be in contact with respect to their temporal boundaries. We see this clearly from the following fact: the thing that is acted upon *is* being acted upon, as such; but because action is equal to reaction, therefore each thing, when it is acted upon is also *acting,* and each thing when it is acting is also being *acted upon.*[289]

(b) In such cases of transformation, it can also happen that causation of some *finite* magnitude may take place and the causing thing and the thing being acted upon will have temporal contact in the way described. But then the two causing things must have existed previously, either unchanging or in a state of infinitesimal change, and the two things being acted upon must continue to exist subsequently, either unchanging or in infinitesimal change.

In this second case, mediate effects of a finite size may occur co-temporally with the immediate causing. And here, too, it is necessary that they continue to exist for some period, either unchanging or in a state of infinitesimal change.[290]

(c) When the cause is not something that is transforming, but is rather a cause that *produces something new* [*einfach neu gebend*], then it can only be continuous, and so, too, for the thing that is being caused. During this continual persistence, both will exist either as unchanging or in a state of merely infinitesimal change. Here again, an effect of finite magnitude may be brought about in any moment, for what is brought about at any moment is either entirely the same or only infinitesimally different from what was brought about in the preceding time that borders upon that moment.[291]

(d) We can also conceive this situation: there is causal activity having an infinitesimal beginning and then increasing to an effect of finite magnitude of the sort we have discussed.[292] Here, as previously, that which is acting and that which is acted upon would continue to coincide in time.

2. The sudden effect of finite magnitude is illustrated in the hypothetical case of a collision between completely inelastic (wholly rigid) bodies (ad 1 b).

If we wish to make continuous infinitesimal causation intuitively clear, then this phenomenon of the collision of elastic bodies is more suitable than gravitation (which is enigmatic with respect to causation).

The process of compression or of forced expansion is a continuous infinitesimal undergoing. Then the process of returning to the original form exhibits an activity of the body, not merely upon its own parts, but also upon another. The reverse motion resulting from the collision of two completely elastic bodies of the same mass is due equally to the elasticity of each body.* If a completely inelastic

* The thought that one body can penetrate into another must be rejected as being incompatible with the principle of impenetrability. This consequence cannot be avoided by the absurd postulate of a field of forces surrounding the bodies.

body were to collide with a completely elastic body of the same mass, then both would recoil at half the original velocity (ad 1 a).

3. What we call rest in time is, more exactly, a case of persisting which involves continuous variation of temporal determinations, a variation which is common to all things existing together in time.

Should we say that, in this case, something undergoes a transformation without there being anything that brings about this transformation?

Or should we say that the thing brings about this constant transformation in itself and is thus acted upon by itself?

Or should we say that in its continued persistence the thing simply receives its being from an active principle and that this giving and receiving of being [*Geben und Empfangen des Daseins*] goes continually on and on?

Or should we say that the thing continually gives its being to itself, but with constantly varying temporal determinations – which determinations are doubtless real and necessarily the same for everything that exists but completely transcendent for us?[293]

Are we here concerned with what is just a matter of constantly receiving a new *temporal determination,* or is it rather a matter of constantly receiving, again and again, an *existence* which comprises the whole and varies infinitesimally only with respect to a single determination? We could speak of a "transformation" only in the first of these two cases. But one will find that the first case is not possible. For it would presuppose that, without the transforming causal activity, the thing persists unchanged. And this is excluded, since in this case the persistence itself is the effect.

Hence we must chosse between the following two assumptions:

(a) During its persistence, the thing repeatedly gives itself its entire being;

(b) The thing continually receives its being but without giving it to itself; in which case either (1) it repeatedly comes into being without being caused to do so, or (2) it receives its being from another active principle.

Case (1) would imply that there is no ground at all for this coming into being and hence that that there is a great multiplicity of things happening merely by chance. But this is plainly unacceptable.[294]

In case (a) the thing would give itself its own being in the manner of a creator and would do this again and again with the constant temporal variation we have discussed. But this is subject to very serious doubts. That this is so may be seen by contrasting the present case with other cases of causation. To be sure, one and the same thing can at one and the same time both act and be acted upon. But when this happens then it must be in contact with another thing upon which it acts while it is itself acted upon. The one thing is under the influence of the other; there is an opposition between them which is wholly or partly neutralized.[295] But in the present case what would the opposition be? We have seen that one cannot

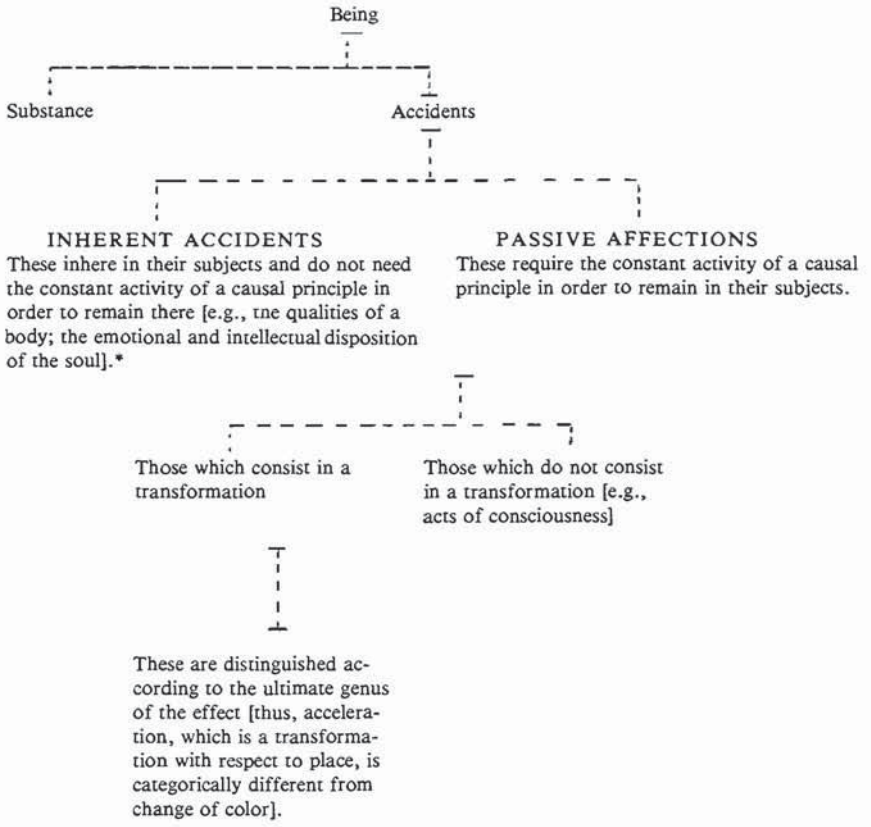
speak of a transformation in such a case. Moreover the situation would provide us with no ground for the universal uniformity with respect to temporal species or for the necessity and uniform velocity of temporal change. In contrast with all this, if we assume an absolute necessary first cause which persists in infinitesimal change and which in its continued being preserves all other things that persist, then we have a ready explanation. The cause of the temporal change in those things that are at rest is to be sought alone in this immediately necessary general first principle which is in eternal continuous change. In this temporal change of things, we have, not a case of transformation, but a case of a simple, ever-recurring reception of reality. Theophrastus had said of the divine principle: δι ὁ πάντα ἔστι καὶ διαμένει.

4. The idea of a necessary change in the divine principle was foreign to Aristotle. He thought it was ruled out by the fact that motion is not pure *energeia* but *energeia* combined with mere potentiality. But this is by no means necessarily or generally the case.[296] A continuous process [*Verlauf*] is thinkable wherein each moment is immediately *necessary* when it *is,* and immediately *impossible* when it is *not.* Moreover the assumption of a continuous change in God is indispensable if we are to think of him as knowing all things and causing all things. For just as certainly as truth and being undergo change, then so too the divine knowledge and the divine efficacy must also change. The fact of such change does not mean at all that the divine principle falls into contradiction. Rather it is only because of such change that God remains in complete harmony with himself. Similarly a man who decided a year ago to do a certain thing in a year is in harmony with himself only if he is now carrying out that decision. If God were to know the whole course of the history of the world, but did not know which states are past, which ones are future, and which ones abtain at the present moment, then he would not be all-knowing. And it is absurd to say that what is past or future for us is present for God. For this would be to affirm the subjectivity of truth. What is invariable can be explained by reference to what is variable, but not conversely. And if motion leads to rest, there may still be the fact of infinitesimal temporal change.

PART THREE

THE FINAL THREE DRAFTS OF THE THEORY OF CATEGORIES (1916)

BRENTANO'S TABLE OF CATEGORIES


Being
Substance
Accidents
INHERENT ACCIDENTS
These inhere in their subjects and do not need the constant activity of a causal principle in order to remain there [e.g., the qualities of a body; the emotional and intellectual disposition of the soul].*
PASSIVE AFFECTIONS
These require the constant activity of a causal principle in order to remain in their subjects.
Those which consist in a transformation
Those which do not consist in a transformation [e.g., acts of consciousness]
These are distinguished according to the ultimate genus of the effect [thus, acceleration, which is a transformation with respect to place, is categorically different from change of color].

* Inherent accidents may be further subdivided into (1) properties which belong to different ultimate genera and are thus categorically different and (2) properties which belong to the same ultimate genus and are thus of the same category. In the case of the former (e.g., color and temperature) transformation from one to another is impossible, but they can belong to one and the same subject. In the case of the latter (e.g., red and blue) transformation from one to another is possible, but they cannot belong to one and the same subject. [Diagram and notes by A. Kastil.]

I. THE FIRST DRAFT OF THE THEORY OF CATEGORIES (1916)[297]

A. THE AMBIGUITY AND UNCLARITY OF WORDS AND SYNTACTIC STRUCTURES

1. Like any other teacher, the one who would teach the philosphical doctrine of wisdom must make use of certain signs in expressing his thoughts. Linguistic statements are to be recommended before all other signs. Normally such statements consist of a multiplicity of words which function in different ways as parts of speech. Standing alone these words are only a linguistic torso. But in each case one can speak of a meaning [*Bedeutung*] which the word acquires when it is combined with others to form an assertion; the word thus contributes to the sense [*Sinn*] of the whole assertion. Some words are distinguished by the fact that, although they assert nothing by themselves, they nevertheless "name" something. When they are spoken they lead the hearer to think of a thing *in recto* and, ordinarily, with the temporal mode of the present – which belongs as a boundary to a continuum of temporal modes.[298] Some would say, therefore, that these words signify something by themselves alone and are thus complete linguistic units. But this is not the proper way to put the matter, for we never converse merely by naming things. A dialogue is a matter of "speaking together [*Unterredung*]," not a matter of "naming together [*Unternennung*]."[299]

2. Statements would lead to nothing if they were not understood and if the words of which they are composed were not understood. Hence the teacher will generally use only words that may be assumed to be understood by the hearer. But when he is not sufficiently certain that the words will be understood, he may find it necessary to explicate them. This is what geometers do when they formulate definitions. But they then make use of other words, taking it for granted that these other words will be understood. Pascal, in his treatise on the art of persuasion, was thus led to set up the following rule: any word which is not readily understood should be brought to full clarity by means of other words that *are* readily understood. Then he observes, characteristically, that it would be best thus to define *every* word, but that since this would lead to an infinite regress and is therefore impossible, we must be content to stop with those words which are most easily understood and to let them serve as the basis for our explanations.

This rule is an exact counterpart to what Pascal said about proofs. If an assertion is not sufficiently obvious in itself, he said, then, one must prove it upon the basis of other assertions and if these, too, are not sufficiently obvious then they

must be supported by still other assertions. And so, he says, it would be best if one could prove every proposition before using it in support of other propositions. But since this is impossible, one must begin with assertions which stand out from the others as being evident in and for themselves.

3. Certainly Pascal is mistaken in saying that it would be better if we could prove all assertions. For there are propositions that are immediately obvious and which do not require a formal proof in order to be evident. And, of course, the validity of a given proof is an evident truth which is not established by reference to still another thing.

But this suggests at once that Pascal may also have been mistaken with respect to what he said about explicating words. Just as it is possible to have an evident apprehension without going through a proof, it is also possible to come to understand the sense of a linguistic sign without having to explicate it by means of other words. Otherwise how could a child ever begin to learn his language? If we ask ourselves how such learning begins, it is certain that habitual associations constitute the prime factor.[300] Even animals are taught in this way – a dog, for example, when we teach him what his name is. But the habits cannot be acquired unless the things associated with the words are objects of consciousness. And thus a teacher of science may have to point to certain things, or at least to pictures of them, in order to make certain linguistic expressions understandable. This is the practice in botany, zoology, anatomy, and the like. The concepts of science are general and are yet elucidated by means of particular things; the hearer himself makes the necessary generalization. One acquires the general concept when one can think of another instance of it in another place and, comparing the two, then abstracts from their spatial difference. And in other cases, where the teacher points to different instances of the same kind or to different species of the same genus, the student, by abstracting, will be led to see what general concept the teacher has connected with his words. The basis for understanding any discourse consists not in explications by means of words but in explication by means of objects, provided these objects are presented for comparison and thus for grasping a common general concept.

Since Pascal was here concerned exclusively with the practice of mathematicians, he did not fully realize the task that may fall upon the teacher of science. And so far as teaching philosophical wisdom is concerned, a teacher would go wrong if he were to restrict himself too narrowly with respect to the ways in which he explicates words. Some of these explications must be brought about by directing the hearer's attention, perhaps for the first time, to certain objects.

4. Yet the teacher may also have to clarify certain words by relating them to other words that are already clear. There is such a need even in the case of words that are familiar to everyone. Some of them are *ambiguous* and it is necessary to call attention to their ambiguity. One does this by using unambiguous words in

order to distinguish the various uses precisely. Other familiar words are subject to a certain *vagueness*. No one can say, for example, how many meters high a hill must be before it can be called a mountain. For the purposes of the scientific use of terms, there may sometimes be occasion to change the meaning of some vague expression that is in common use so that it is no longer vague. Thus the geometer will define point and line in such a way that no point or line that is drawn with a pencil will correspond to his definitions. And where an expression is ambiguous the geometer may fix on just one of its meanings in order to prevent misunderstanding. We find Aristotle devoting an entire book of his *Metaphysics* to distinguishing the meanings of words; he calls it περὶ των πολλαχῶς λεγομένων.

5. Grammarians and lexicographers have also been concerned with noting and delimiting ambiguities, and so one might think that this relieves the teacher of philosophical wisdom from any such task, it least in connection with words in common use. It turns out, however, that the purely philological approach neglects certain very important distinctions while ascribing great importance to others which are significant only in relation to the formal aspects of linguistic expression. The treatment of the expression "to be" provides a striking proof of this.

According to grammarians, the expression "to be" has a two-fold meaning as an independent verb – depending upon whether it is used as a principal verb or as a copula. Thus if I say, "A tree is" [*"Ein Baum ist"*], then the verb "is" is a principal verb. If I say, "A tree is green", then the verb is a copula.[301]

On the other hand, it does not occur to them to distinguish the uses of "is" in such sentences as, "A tree is a plant"; "A tree is near a house"; "A tree is dear to me"; "A tree is possible."

According to grammarians, if, instead of saying, "A tree is green," I say, "A green tree is," then the "is" has the meaning of a principal verb – even though what I say comes to the same thing as "A tree is green."[302]

On the other hand, when one says, "A tree is a plant," the word "is" seems to connect the subject with the predicate in an entirely different way from that in which it connects the predicate with subject in "A tree is near a house." In the first case, I have posited a tree as being identical with a plant: this means that the tree would no longer exist if the plant were no longer to exist, and conversely. In the second case, the tree could continue to exist after the destruction of the house, even though it would no longer exist as a tree which is next to a house.

In the case where one says, "A tree is possible," the tree does not even need to exist for the sentence to be true. If one looks more closely, one sees that we are not here concerned with relating a predicate to a subject, and that we are not even concerned with the affirmation of anything (we are not affirming a tree and we are not affirming its possibility).

Perhaps one will concede that in such a case we are not affirming a tree, but

will then go on to insist that we are affirming the possibility of the tree. One may even say that there *is* the possibility of the tree, thus using the "is" as a principal verb; in this case the possibility is said to be or to exist.

If we investigate this case more carefully, we find that possibility is not a name in the strict sense of being a term that really names something. A possibility cannot be the object of a presentation.[303] What is the object of presentation when we speak of possibility is this: first, someone apodictically rejecting a certain thing; and, secondly, someone making an evident judgment which apodictically rejects one who makes an evident judgment which apodictically rejects the *first* thing.* Thus if I say, "A tree is possible," I judge that if I think of someone apodictically rejecting a tree, then I think of someone who is judging erroneously.[304] And so we see that the grammarians are mistaken in thinking that the word "is" functions here just as it does in the other cases; for it here performs an entirely different function.

The sentence "A man is healthy" can be converted to "A healthy thing is a man." But if I say, "This goldpiece is counterfeit," my sentence cannot be converted to "A counterfeit thing is a goldpiece." If I say, "*A* is *A*," I do not thereby ascribe a predicate to *A*; what I do is deny that *A* could exist without the predicate.[305] Similarly, if I say, "A non-existing thing is a non-existing thing," or "A round square is a round square." Suppose I say, "A spatially extended thing is" and then go on to infer "A spatial extension is"; the two statements do not use being in the same sense. The extended thing *is* a thing and can be thought. But extension is not a thing and cannot be thought. I can, however, think of an extended thing in an indefinite way, in accordance with general concepts; and then I can say of it that, since I am thinking of it in abstraction from all its characteristics other than that of being an extended thing, I am thinking of it only in respect to its extension. Of the thing as it actually is, I can say that it is actual in respect to its extension, but I cannot say of it that it is actual *only* in respect to its extension.[306]

If one says, "There *is* something in the mind," then it is clear that being is not taken in its strict sense. Otherwise even contradictory things could be said to be in the strict sense.

If one says, "That there are no men three meters high is true," then it is clear, once again, that being is not used in the strict sense. Otherwise "That there are no men three meters tall" would be a thing. But I believe that grammarians make no distinction at all between this use of "is" and the use it has in the sentence "A man is thinking."

6. Failure to recognize these different functions has disastrous consequences

* [Translators' note: In this paragraph, Brentano's expression *"als unmöglich verwerfen"* is here translated throughout as "to reject apodictically."]

for the theory of philosophical wisdom. Thus one is led to believe that there are many entities existing throughout eternity and independently of God – for example, the impossibility of the round square – and hence that these eternal uncreated entities restrict the omnipotence of God. And then one is confronted with the question: are these entities *things,* or could it be that there are objects of our thought which are *not* things?[307] Either answer leads to further serious errors. If one says that these entities are not things, and also says that an object [*Gegenstand*] of thought need not fall under the same concept as that of thing [*Ding*], then one misconceives the unity of the concept of thinking. A thinker is indeed that which has something as the object of thinking [*etwas denkend zum Gegenstand hat*]; if the concept of *thinking* is a unitary concept, then a unitary sense is also connected with the *something.*[308]

Hence, by considering this one example of ambiguity, we see clearly that, despite the work of the grammarians and lexicographers, the teacher of the theory of wisdom still has much to do.

B. THE TYPES OF PREDICATION

I. Spurious predications

7. With respect to those statements which posit a particular substance as subject and which seem to ascribe a predicate to that object, we may distinguish the following:

(a) Some are not even categorical propositions. Rather than conjoining things, they are simple positings [*Positionen*]; for example, "This man is existent," which comes to the same thing as "This man is." This man is thought of in the mode of the present and is accepted or affirmed. (Perhaps the same thing holds of affirmations in other temporal modes, as when one says, "This man is past" or "This man is future," thus applying a determinate temporal mode in thinking of the thing.[309])

(b) Some do not even express the affirmation or acceptance of the subject. For example, I may say, "This man is possible," "This man is thought of," "This man is a non-being."

(c) In some cases the predicate is a *denominatio extrinseca.* Here, it is true, the subject is affirmed, but affirmed together with something else which is such that, if it ceases to be, the subject will change only in that it will no longer have the predicate. This is the case with such predicates as "being dressed"; it is also the case with comparisons, when the subject is said to be more or less than something else, as for example, "This man is taller than that man." Again, when one man is

said to be another man's master we are also dealing with an attribute that implies the existence of the subject but can cease to belong to it without changing the subject.[310]

II. Genuine predications and ultimate subjects

8. Here we propose to consider only such predicates as belong to ultimate individual substance. We distinguish three cases:

(1) Predication of inherent properties [*Beschaffenheiten*]; for example, a certain virtue. Here the subject can lose the predicate; then, if the subject itself continues to exist, something in it is changed as a result of the loss: the subject has been modified in some way.[311] Here the predicate is *inherent* in the subject. This distinguishes it essentially from the *denominatio extrinseca* which can be lost as the result of a change that does not affect the subject in the least.

(2) Another case of genuine predication is that wherein the predicate, though it is also something that modifies the subject, is not inherent in it; rather, it belongs to the subject only as long as the latter is acted upon. The loss of the predicate comes about, not as the result of a transformation, but because the force that acts upon the subject ceases to act. This is what in antiquity was often designated as motion ($\kappa\iota\nu\eta\sigma\iota\varsigma$). One could also call it a *passion* or a passive affection. Seeing, hearing, sensing of every kind, and indeed all thinking, would seem to be instances of passive affection. When the law of inertia was unknown and it was thought that a body is in motion only as long as it receives some impulse, even locomotion was thought of as a passive affection. We may also assign to this class changes that result in a permanent state, but which, as long as they continue, are caused; for example, being warmed or being cooled.

(3) The previous two cases were cases of accidental predication. They are to be distinguished from those cases where there is identity of substantial predicates.[312]

9. Some predications contain attributes of place. Some of these attributes are nothing but *relativa* which refer to objects whose location is assumed to be known, as for example, "in the market place"; these undoubtedly belong to the *denominatones extrinsecae*. But the absolute spatial determinations seem to be substantial differences, and this may be connected with the fact that two substances cannot penetrate each other spatially. To say that they could is to contradict the *principium indiscernibilium*.[313]

10. We have considered the question "Where?" We must now consider the question "When?" The question has two essentially different types of answer. Thus one may answer: now, yesterday, a year ago, tomorrow, etc. Or one may answer: when Christ was born, 100 A.D., etc. A given determination in the latter mode can successively coincide with very different determinations in the former mode. The same date is shifted farther and farther back into the past.[314]

The former determinations are given relatively to that which is present, and they serve as surrogates for the specifications of a temporal mode in which the subject would actually have to be thought of in order to be correctly accepted or affirmed.[315] They do not specify real features which are linked to the subject as its predicates.

One could say, with more justification, that the second class of temporal determinations *are* real predicates of the subject. If anything prevents us from saying this, it is no doubt only the fact we can specify these determinations only relatively; we can form no idea at all of absolute, temporal differences, which are entirely transcendent to us.[316] Therefore these determinations, to the extent that they are given to us, must be classified as *denominationes extrinsecae.* But we perhaps could say, of those absolute determinations for which the present ones serve as surrogates, that we have as much right to call them substantial as we do the determinations of place.[317] In contrast to the determinations of place which are different for every substance to which they belong, the temporal determinations are necessarily the same for all existing substances. Therefore the temporal determinations can in a sense be called differences which are neither generic nor specific; for generic and specific differences serve to distinguish one existing thing from another.

III. Predications and pluralities

11. In distinguishing the various modes of predication and thereby the functions of the copula, we have not considered those predications in which the substantial subject may be viewed equally well either as a plurality of substances or as a single substance. Where this is the case, we must speak of still other modes of predication – for example, those involving spatial magnitude and shape.

Moreover, when a determination is assigned to the whole in respect of one or another of its parts, the result is a far greater variety of predicates.

Among such predicates one could also include numbers. Thus I can say: "These stones are three."[318]

We have not considered those cases of predication where we have a complex determination which has several different parts. In such cases each part could be predicated separately, as when I characterize a man by saying that he is endowed with several virtues. But it seems unnecessary to go into these cases in detail. Since we are dealing with a complicated predicate, then, strictly speaking, we are also dealing with a complicated copula.[319] If I use the single term P for the conjunction of the two different predicates, P^1 and P^2, then, in making a predication by means of P, I am in fact making two different predications, one of P^1 and the other of P^2.

C. THE PASSIVE AFFECTIONS

12. According to what we said about the *passive affections, that which is hearing* is clearly the same as *that which is being-made-to-hear.*[320] This is not to say, however, that one who thinks of something as a thing that is hearing also thinks of it as a thing that is being-made-to-hear. Were this the case, the question of how we arrive at the concept of that which is acting or the concept of that which is being acted upon would present no difficulties and every sensation and state of mind we experience would supply all we need to answer it. That hearing and thinking are passive affections is not inferred analytically from our ideas of them; it is ascertained by experience.[321] This is why Aristotle says of intellective thinking that we are led by analogical inference to regard it as a passive affection similar to sensation. And so, one who predicates *thinking* of a subject need not be aware of predicating a passive affection. Nevertheless thinking is such an affection, and for this reason what the copula here links with the subject is something related to the subject in the way peculiar to a passive affection, and not in the way of (say) an inherent property [*einer Inhärenz*].

Can one say, "I am undergoing the thinking (or the being or becoming of that which is thinking)"? Perhaps the answer should be affirmative. And if it is further asked whether one undergoes the undergoing, it seems that in all consistency the answer must again be yes. But it would be wrong to believe that the passive experience of the passive affection is a second passive affection; rather, we are dealing here with one and the same passive affection. And it is clear that to assume the opposite would lead to an infinite regress.

13. One could ask whether, in analogy to the accidental passive affections, there cannot also be substances which subsist only by being continually produced and re-produced. There is no doubt that such a possibility cannot be ruled out *a priori.*[322] If so, what would we have to say about substances that passively preserve themselves in being? Would they, to the extent that they are produced, be burdened with an accident which might be included, say, among the passive affections?? By no means. Rather, such a substance would be identical with that which is passive as such, just as thinking is identical with that which passively undergoes the thinking.

14. One could further ask whether that which is being produced or that which is suffering a passive affection is as such to be counted as a *Relativum;* and if so, whether, like certain other relative determinations, it does not belong with the *denominationes extrinsecae.* Here one would have to say that the passive *qua* passive surely requires something that is active, but that *qua* passive it can remain the same when its active correlative is replaced by another. Therefore this case is not similar to that in which one says, "Caius is taller than Titus." It would be more similar to that in which one would say, "Caius is taller than any other

thing," where the statement could continue to be true even if everything shorter than Caius ceased to exist and were replaced by other things. One cannot speak here of a *denominatio extrinseca;* for the attribute that is predicated (e.g., being a thinker) presents itself wholly as a modification of the subject to which it is assigned. If one fails to realize that the existence of such an attribute requires the existence of something active, this is only because the determination itself is imperfectly and incompletely present to consciousness.

From the foregoing we also see what must be said of a substance that depends on something else for its continued existence. It would perhaps not be true of such a substance that the active principle which keeps it in being could change and so be replaced by another.[323] Then we would have a relation between one determinate individual and another. But perfect and complete knowledge of the passive substance would itself contain knowledge of the substance to which it is related, and so, here too, one would have no right to speak of a *denominatio extrinseca.*

15. We have seen what is to be said of that which is passive and being produced as such. Let us now speak of that which is active as such. According to some, the experience that led to the formulation of the law of action and reaction shows that activity should be included in that which modifies the active subject.[324] If this were so, the only question here would be whether we must not perhaps postulate a third genus of modification alongside the inherencies and passive affection. But the supposition is entirely incorrect. Where action is equal to reaction, the active force is modified not *qua* acting but *qua* being acted upon. And so the thing being acted upon never produces the slightest modification in that which is acting. That which is active is so only in virtue of the fact that the thing which is acted upon *is* acted upon by the thing that is active.[325] Therefore, we are really dealing with a predicate which, like other relative predicates, must be included in the class of *denominationes extrinsecae.*

The foregoing cannot be objected to on the ground that knowledge of that which is active, if the activity is not supported by contributory causes, can contain the knowledge of that which is acted upon. For that which implies knowledge of the effect in this case is not a modification produced by the active force.[326]

16. Just as the existence of that which is produced depends as such upon that which is producing it, so a point depends on something to which it belongs as a boundary. And this is a part of the nature of a point. It belongs to a continuum, yet its existence would not be impaired if parts of the continuum were removed one after the other, *ad infinitum.* One cannot say of any specific continuum that its existence is required for the existence of a particular point. This is similar to what we said of the passive affection which depends for its continued existence upon something active. But there is a certain distinction. For one and the same

individual point to exist, what is necessary is not a certain specific continuum, but rather a continuum in general.[327] The continuum need only be such that it has some part in common with any other continuum to which the point could belong as a boundary. This is required if we are to have the same point with the same plerosis.

In discussing the passive affections we observed that something that is thinking is identical with something-being-produced-as-thinking; similarly, a point can be said to be identical with something belonging to a continuum as boundary and therefore dependent on the continuum for its continued existence. The belonging-to and the being-dependent-upon are not *denominationes extrinsecae.* We may contrast the situation where I designate the point as belonging to an individually determinate continuum; for example, when I say of it that it is a vertex of a cube having a volume of one cubic meter. Here we are certainly dealing with a *denominatio extrinseca.*

We said that a thing could be apprehended as a thinking thing without thereby being thought of as a-thing-that-is-being-made-to-think; but it is *not* true that a thing could be apprehended as a point without thereby being thought of as a point belonging to a continuum. Rather, a point could be conceived in more and more general terms, not as a point but as an *ens Reales;* and then, of course, it need not be conceived as belonging to a continuum.[328]

D. COMPARISON WITH THE ARISTOTELIAN THEORY OF CATEGORIES

17. What I have been saying about predications in which an individual substance is given or seems to be given as ultimate subject agrees in many points with what Aristotle says in connection with his theory of categories. However, we cannot accept Aristotle's view in every respect. Thus we reject his view according to which even extended substances are ultimate [*letzteinheitlich*] substances. Moreover, we have indicated that certain predicates which Aristotle assigns to different highest classes have a character in common as *denominationes extrinsecae.* We have also said that comparative relations and causal activity are to be counted as *denominationes extrinsecae.* In addition, having concluded that a continuous substance cannot be an ultimate subject, we must take special note of the *point.* Again, I have not included spatial determinations in the class of accidents. Spatial determinations are not relative but absolute, and since they constitute that which individuates, they should be counted as substantial. I have likewise suggested that the same would be true of certain answers to the question "When?" if the determinations involved were not completely transcendent to us. Finally, we have indicated that a substantial analogue to the passive affections is conceivable in the accidental domain.

These deviations are not insignificant, yet far more significant ones are necessary. For Aristotle is in error when he denies that there is a unitary, all-encompassing concept of being that holds of everything which may be predicated of a substance. The truth is rather that whatever does not fall under the same highest general concept cannot become object of thought. This is as certain as is the fact that the concept of that-which-is-thinking is itself univocal. For "to think" means the same as "to have something as object of thought." And the name "that which is thinking" would not be univocal if the expression "something" were not here taken in a unitary sense.

18. It is a mistake, then, to speak of a manifold sense of being [*von einer vielfachen Bedeutung des Seienden*] – and then to distinguish these senses by reference to the being of substances and to the being of accidents and to the several different genera to which the accidents belong. Indeed, one may well ask whether we should still speak of different categories. After all, their differences were supposed to correspond to the different senses of being according to whether being is predicated as the highest concept of a substance or of an accident.

And yet this is the case [we may speak of different categories]. For although every accident is in fact a "something" in the same sense as a substance, it is related to the substance which is its subject in another way than the way in which this substance is related to itself. Moreover different classes of accidents may similarly be related in different ways to their subjects. These differences are of course the same whether we conceive the accidents in universal or specific terms. But in view of the indefiniteness of universal thinking, these differences are less apparent in the concepts the more indefinitely the concepts are thought, and they are not apparent at all when we think in the most universal terms and therefore in the highest degree of indefiniteness. If a thinker is conceived of entirely generally as a "something," even the fact that thinking is not substance but an accident is excluded. If one thinks of it as accident, this implies that it is a being which requires another being as subject. When it is apprehended as a passive affection, it is further specified as different from an inherent property. And if there are other classes of passive affection besides thinking, the specification of an accident as a thinking thing may indicate a still closer specification of its relation to the substance which underlies the thinking as its subject. And so we are not compelled to deny that the real attributes of a substance stand in different predicative relations to their ultimate substantial objects. But we must not suppose that therefore each cannot be called an entity [*ein Reales*] in the same sense. If the nature of different accidents becomes clear enough to enable us to distinguish different ways of being related to an ultimate subject, then we say there are as many categories as there are ways of being related to such a subject.

E. THE PROBLEM OF THE CRITERIA FOR DISTINGUISHING CATEGORIES

19. At what degree of specification does the character of a given category become fully explicit? It is tempting to say that it becomes fully apparent as soon as we are given an accidental determination, which excludes any simultaneously given plurality of accidents of the same species. For any other accidental attribute which specifies the subject in the same respect excludes the one already given. Only what is indeterminate can be made determinate; similarly, only something that as yet has no being can receive being. For example, a subject that is blue and remains blue cannot as such become red, because the way it would be determined by the attribute red is one of the ways in which it has already been determined.

If the foregoing is considered more closely, it seems to follow that, in order to ascertain the number of categories, one should refer to the number of genera having ultimate specific differences. Of these genera, Aristotle often says, characteristically, that they differ in their matter. According to him, contraries of the same genus have the same matter, and the same matter cannot be actualized twice by being simultaneously embodied in two forms.

20. However, if the above answer were true, it would lead to new difficulties.[329] For example, one may ask whether one and the same soul can simultaneously experience several acts of thought. If the expression "act of thought" is taken in a broad sense so as to include sense perception, the answer to the question seems to be yes. For we can perceive and think abstractly at the same time; we can see and hear at the same time; we can even see red and blue at the same time when they are localized at different places in the visual field, and we can continue to see the one after ceasing to see the other. It would seem that we can also think several concepts simultaneously and thus have a great variety of thoughts. Moreover, we can make affirmative judgments simultaneously with negative ones, as when we combine the two and thereby arrive at the conclusion of a syllogism. Indeed, whenever we deny anything, we innerly perceive ourselves at the same time as denying something, and thus combine an affirmative with a negative judgment.

A manifold of thinking, then, may take place at a given time. Now given the proposed criterion for distinguishing different categories, how are we to avoid saying that there is a great multiplicity of categories, which still permit us to distinguish the thinking thing as thinking thing?

21. Surely the fact that we often see blue and red simultaneously when they are located close to one another would hardly incline us to hold that seeing at one place and seeing at another place belong to two different categories. The fact that we are capable of a multiplicity of psychic relations, whether they be directed toward the same object or toward different objects, would require a great profusion of categories.

To counter his objection one might point out that not every psychical relation can be viewed as a separate psychical act. After all, the relation to the secondary object and the relation to the primary one are certainly not given in two different acts. Similarly for the multiple relations which are sumultaneously given as secondary objects when the same thing is both thought of and accepted or affirmed and perhaps also is object of an emotion. And so we see that neither the multiplicity of the objects nor the multiplicity of the ways in which we may be psychically related to one and the same object is sufficient to prove that our psychical passive affections constitute a plurality. Hence we may suppose that this fact considerably weakens the objection.

22. In any case, however, this matter must be studied more closely. As we saw earlier, even a collective can be called a thing. Again, there are things which can be viewed as an indefinite plurality of things whose ultimate elements are of this sort: they are nothing by themselves and are things only insofar as they belong to a whole in which an indefinite plurality of such elements can be distinguished.[330] We found this to be the case in the domain of substances. As for the accidents, we found above that the substance by itself as well as the accident together with its substance can be called a thing, but we must not say that the accidental thing is composed of *two* things. When we are dealing with a substance that is subject of several accidents simultaneously, it can be called a thing both by itself and together with one, or several, or indeed all its accidents, but it cannot be called a plurality of things. The substance with all its accidents is a thing on its own [*ein eigenes Etwas*], as is also the substance with any one of its accidents or with only some of them.[331] When the accidents of an ultimate substance are multiplied, the substance becomes a subject, not of what is many [*Vielem*], but only of what is manifold [*Vielfachen*]. It can happen that the substance is subject of what is indefinitely manifold. In this case, the indefinite manifold does not belong to different categories in virtue of its different parts. It can serve as an example of the same category whether we consider it in respect to its indefinite multiplicity of such parts or in respect to each ultimate part. Should the manifold lose one of its parts – and there is nothing to prevent this – the substance would become the subject of a less complex manifold, without the remaining parts of the manifold suffering any real change. And so, it would seem, we may say that a person who sees and hears simultaneously and then ceases to hear while continuing to see is still entirely the same *ens reale* as before.

23. Marty contradicts what we have said above, arguing that we could not compare our hearing with our seeing if our consciousness of ourselves as hearing and as seeing were not *one* consciousness.[332] But what prevents us from assuming that I have a consciousness of myself as hearing, which includes neither myself as hearing, nor myself as one who is comparing seeing and hearing? And yet I could have this consciousness of hearing *along with* the consciousness of myself as see-

ing and that of myself as comparing seeing and hearing. I would then be conscious of myself as just hearing only if the seeing were to cease. Or I could continue to be conscious of myself as one that is seeing, without having the consciousness of myself as one who is comparing; this would happen if I were to continue to hear and to see but cease comparing the seeing and the hearing.[333]

The errors in Marty's doctrine become apparent in the consequences he draws from it. One of these is that no mental activity can be the cause of another, which is manifestly in contradiction with our inner experience and would make it impossible to explain how we form the idea of causation. For we perceive causation only as between mental states. It is true that according to Marty the concept of an *ens reale* contains that of causing. But this is just another indication of the extent to which one can be misled, if like Marty, one fails to recognize that thinking is always directed upon an *ens reale* as its object.

24. The foregoing discussion was not at all intended to show that all accidents of a subject can and must belong to *one* category. Yet it cannot be denied that what we said about the criterion for the unity or multiplicity of categories needs careful examination. After all, the incompatibility of red and blue is in no way demonstrated by *experience,* since neither color seems to exist in reality. What experience shows is only that we are unable to intuit one and the same part of the visual field as at once red *and* blue. That some other creature might be able to intuit the same part of the visual field with another color is beyond doubt. And it has never been shown that God couldn't create a being capable of intuiting the visual field twice at one and the same time – intuiting it as filled with blue and also intuiting it as filled with red.[334]

F. THE COPULA IN GENUINE PREDICATIONS

25. Another question presses itself upon us. What are we to say of the "to be" of the copula and of that sense of "to be" which can be replaced by "to exist," thus making "A tree is" synonymous with "A tree exists"? Should we say that the "to be" of the copula has several meanings, since, although it always expresses a connection [*Verbindung*], it indicates a different mode of connection for each category?

Let us first consider the latter question, since it pertains to the question with which we began – that of the different senses of being. It is easy to see that the copula, as copula, functions in the same way no matter to what category the predicate belongs. We have already seen that, if the predicate is a universal holding of the subject, then the most universal determination is united with the subject in precisely the same way as is the most specific of determinations. The most universal of all determinations is common to all accidents as well as to substance. In the

case of "A is something," no one can say that the meaning of the copula varies with the categories to which the something in question belongs. There is no other determination of which this can be said. The differences of the categories do not yield different senses of the copula, but they do yield differences in the predicate, provided they are sufficiently determined generically.[335]

26. But we can go still further. We can deny that there is a distinction of meaning between the "is" of the copula and the "is" which stands by itself. "A tree is green" and "A green tree is," as well as "There is a green tree," all come to the same thing. And so I would also venture to affirm that "A tree is green" comes to the same thing as "A tree exists as green" [*"Ein Baum existiert grün"*].[336]

More than that, the sense of "is," whether standing alone or used as copula, does not change in the least when, instead of an ultimate unity [*einer letzten Einheit*], a collective is posited as ultimate subject; nor does it change when the predicate is altered in a similar way. And of course the same is true when the subject is not a substance but an accident, and when its predicate is not an accident but a substantial concept. The copula "is" and the expression "there is" are both signs of the fact that something is accepted or affirmed. And the "is not" similarly is a sign that something is rejected or denied, namely, rejected on the basis of a presentation in which something is thought of as existing now.

G. ADDENDUM: THE COMPATIBILITY OF ACCIDENTS WITHIN THE SAME CATEGORY[337]

27. We have distinguished several classes of accidents with reference to which one can speak of different categories. Is this way of classifying the categories exhaustive? Or can accidents be related to their subject in still other ways? When two accidents belong to one and the same subject, must each of them be related to it in a different way? Is this why it is evident to us that no one can be disposed simultaneously to a certain virtue and also to the contrary vice? For in such a case both would belong to the subject in the same way. And is this also why it is impossible for a thing to be red and blue at the same time and at the same place, even though these qualities, if they fill different places, can be given actually together and not merely as phenomenally together?

It is generally assumed that, if sense qualities were to exist in reality, then blue and red could not be the qualities of the same subject, but blue and hot could be qualities of the same thing. If this is true, then the qualities of temperature and of color would be related in different ways to the subject.

(It may be noted in passing that there are those who hold that red and blue are compatible in the same subject. The so-called psychological realists hold that when a color-blind person sees something black where a normal person sees

something red, both see quite correctly. The same subject is thought to have both colors and each of the two persons is said to see only one of these colors.[338])

28. Let us now turn from this special case to the case of psychical activities. Here, it would seem, not only hearing and seeing are compatible in the same subject, but also seeing blue and seeing red, insofar as the red and blue appear as localized differently. Are we to assume that all these acts, because they can be found together in the same object, have different ways of being in the subject?

Again, when we intuitively apprehend something that is at rest, do we also have an intuition of the thing, as being something that is now at the same place where it was earlier? In this case, are we to assume that the two intuitions are accidents predicated in different senses because both belong to the subject at the same time? And what of the case where we combine two concepts? We think the one and the other at the same time. Are we to suppose, then, that in each case the thinking person is related to the substantial subject in a different way? Again, when we draw a conclusion from several premises, one judgment is combined with another; must the mode of inherence be different in each because of the simultaneity of the acts?

It is true that explicitly contradictory judgments, as distinguished from others, seem to be mutually exclusive when they are simultaneous. And so, given the criterion in question, we would have to say that affirmation and rejection of the same object fall under the same category. And what is even more strange, we would have to say that two judgments having different objects belong to different categories – even if both are affirmations![339] And so we must look elsewhere to find the ground for the incompatibility of such judgments.

29. In support of the thesis that two accidents cannot be predicated at the same time in the same way, one might argue that the aggregate of our psychical activities, when they are simultaneous, is a real unitary accident.[340]

The argument would run as follows. The simultaneous relation to the primary and secondary object is certainly given in one and the same accidental activity; similarly, we find that the relations involving the mode of presentation, of judgment, and of emotion are combined in a unitary way. With any change of our thinking in one respect, the whole of our thinking would have to become different at the same moment; yet the way the thinking whole is related to its subject is invariably the same. But that the whole simultaneous consciousness in fact constitutes *one* unitary accident is apparent from this fact: it is encompassed by a unitary secondary consciousness without which an evident comparison of the parts would be impossible.[341]

This reminds us of the opinion of those who would deny the distinction between accidental and substantial determinations. They would think of all determinations as being alike in that they are different universals. When the determinations are combined with each other they yield a more determinate idea

of the same thing; the thing is thus thought less determinately when it is thought in any one of the universals alone. According to this doctrine, everything we said about accidental relations is erroneous, the substance is a mere fiction, and what is in question here are only universals and their logical parts.[342]

30. Both the doctrine and the argument offered in its favor are in error. The argument from the fact of an all-encompassing secondary consciousness may be criticized as follows: a person may be thinking in a manifold way; he may have a special consciousness of certain parts of his thinking; and he will have a total-consciousness of his entire thinking which will encompass this special consciousness. Now if any part of the thinking which is not comprised in that special consciousness falls away, then the total-consciousness no longer exists. But that part of the thinking of which he had the special consciousness can as such continue to exist unchanged. In a simular way, a person who hears something and smells something at the same time may persist entirely unchanged of he ceases to smell anything.

The doctrine itself is also erroneous. One might criticize it from the doctrine of common sense according to which the self of which our memory speaks is the very same as the self that exists and is mentally active now. It would not be the same self if nothing belonging to the thinker were individually preserved in such changes. The argument, however, is not cogent, for we do not grasp our individual differences in inner perception; hence, if such differences persisted as such, the appearance could well be the same.

By contrast, the following refutation seems cogent. As mentioned above, in our mental life we often experience a change as a result of which certain attributes fall away without being replaced. A person who hears and sees, ceases to hear while continuing to see; a complicated thought occasionally supervenes upon a sense perception and then ceases, with no other thought taking its place. In such cases we are dealing with the simple subtraction [*Entfall*] or addition [*Hinzutritt*] of determinations. Now, since every determination would belong to the definition of the whole, an individual would be fully given – with or without the determination – and it would have all that is needed for complete determination. But this is impossible. If a logical determination of the individual could fall away, and if it were not replaced by another positive determination, then what would remain would be, not an individual but only a universal. This is what happens, for example, when I subtract the qualitative differences from the concept of that which is red retaining only that which is colored without replacing it with another positive difference – say blue. In our case, this would imply that a man who hears and sees would be divested of individuality if he merely ceased to hear. This consequence is avoided only if it is acknowledged that he remains individually the same as one-who-sees after he has ceased to hear. The determination as one-who-hears contributed nothing to his individuality. And similarly for the

converse. It is obvious that this person who sees stands in a different relation to this person who hears than he does to some other person who hears. The difference between one who sees and the one who hears are *entia realia* which are partly but not wholly different, whereas in the latter case we are dealing with two wholly different *entia realia*. In the former case the part common to both is the subject, i.e., the substance. (From the foregoing discussion it also follows that the-one-who-hears and the-one-who-sees and the one who is psychically active in some other way cannot be viewed, as our adversaries believed, as being simply one and the same individual entity.[343])

31. And so it seems further to follow that the criterion proposed above does not enable us to discover additional ways in which the accident is related to a subject. Therefore it does not lead us to additional categories.

II. THE SECOND DRAFT OF THE THEORY OF CATEGORIES (1916)

A. THE UNRELIABILITY OF GRAMMAR AS A GUIDE TO DESCRIPTIVE PSYCHOLOGY

1. Grammarians distinguish between the use of *sein* ("to be") as a main verb and as an auxiliary verb. They similarly distinguish between such uses of *werden* ("to become") and *haben* ("to have"), depending on whether one says *ein Ding wird* ("a thing becomes") or *ein Ding hat* ("a thing has") or *ein Ding wird sein* ("a thing will be"), *ein Ding wird tun* ("a thing will do") and *ein Ding hat getan* ("a thing has done"). They seem to regard the *wird* in *ein Ding wird tätig* ("a thing becomes active") as a main verb.

Moreover they distinguish between that use of the principal verb "to be" in which it affirms the existence of something from its use as copula to combine an attribute with a subject.

According to them, this exhausts all possibilities. They make no allowance for the fact that subject and predicates differ in kind. In particular, they do not distinguish the case where the subject undergoes a *determination* by means of the predicate from that wherein the subject undergoes a *modification* and may indeed be cancelled out. They even take no notice of the fact that the "is," while seemingly serving to express an affirmation, in some cases expresses a negation.

It is hardly going too far to say that the grammarians' idea of the mental processes expressed by language is just as unclear as that of the people who built up the language. They fail to distinguish sharply enough between the cases of simple position [*Position*] from those of composition, and take it for granted that the former are cases of genuine predication like the latter. According to them, when one says "An *A* is," this is a short form of "An *A* is existent," just as "An *A* runs" is a short form of "An *A* is running." And so the only difference between the case where the "is" functions as copula [*Kopula*] and those where it functions as main verb would be that in the latter case the sense of the copula is combined with that of the predicate.

Moreover, their distinction between the "is" as copula and as auxiliary verb turns upon whether the predicate does or does not have a participial form – and hence upon an external matter of conjugation. But this matter of conjugation is irrelevant to what is actually expressed. It does not matter whether we say, "*N* is helping" or "*N* is helpful."* It is further to be noted that when predicates result-

* [Translators' note: Brentano's example is "*N ist wohltuend*" and "*N ist wohltätig*."]

ing from such conjugation are preceded by an article they seem to be no different from other adjectival or substantival predicates; and then the "is" that links them with the subject is no longer an auxiliary verb, but is a copula.

However, just as one can distinguish between "is running away" and "is a runaway," one could also distinguish between "is green" and "is a green thing," and view the "is" in "is green" as an auxiliary verb [and the "is" in "is a green thing" as a copula]. All this is unclear, and we would be at a loss were we to decide in this way whether we are dealing with a copula or an auxiliary verb in such statements as "*A* is human" (as opposed to "*A* is a man"), "*A* is water" (which has no counterpart of this sort), and "*A*'s are people" (where an article is never used), and in statements formulated in languages which, like Latin, have no articles.

2. Instead of speaking of an auxiliary verb "to be," should not one say that it is no doubt a main verb, but nothing more than that? Like many other verbs, it performs more than one function, not only that of a verb, i.e., of a copula, but also that of stating a predicate? In the statement "*N* froze," for example, the verb "froze" combines the functions which in the statement "*N* was freezing" are divided between the words "was" and "freezing." Such a double function would then serve as a verbal abridgment: *one* word would be charged with two tasks one of which would be that of a so-called auxiliary verb.

And so, it would seem that, if we are to be clear about the distinctions the grammarians make here, we should say this: the grammarians have the language of ordinary people before them; but the people speaking this language have come to use the verbal form which serves to express the *composition* of subject and predicate also where no composition, but only simple *position* is involved. And this is why German actually has no "is" standing for a simple position, but only for compositions with a genuine or imagined predicate.[344] As a result of abbreviation, this verb "is" is often combined with the word expressing the predicate.[345] But then the latter performs a double function. Moreover, the word denoting the genuine or spurious predicate is often derived from a verb, i.e., from a word that implicitly performs the copula function of the "is." Then it is called a participle and is regarded as a verb form, which should not be done since it has no share in the function characteristic of verbs.[346] But when one does ascribe such a function to the participle, then the "is," which in fact performs the entire function that is characteristic of the verb as such, seems to have lost a part of this function. This then gives rise to the belief that the "is" has been demoted from the status of a main verb to that of a mere auxiliary verb.

One might attempt to argue this way in favor of the distinction between participles and other predicates: participles, unlike ordinary adjectives and nouns, specify something as present, past, or future. But actually an ordinary adjective

such as "red" or "triangular" evokes the idea in the *modus praesens*.[347] And on the other hand, the given temporal character of the participle can be altered just as that of the ordinary adjective, as when one says, for example, "He will be dressing" or "He has been dressing," "He will be dead," and so on. Moreover, the temporal character remains the same when instead of saying "is dressing," one says "is a dresser" [*ein Anziehendes*], where the "is" performs the entire function characteristic of verbs.[348]

3. The grammarians concern themselves with ordinary language which does not mirror things in any clear way but which does mirror ordinary thinking in all its obscurities and errors. It is clear, therefore, that they can provide us with very little or wholly imperfect information about the differences in the significance which words have for things.[349]

And what is true of words is also true of syntactical form.

B. GENUINE AND SPURIOUS PREDICATIONS

4. What is usually viewed as a predication, more specifically, as an affirmative predication, may be one according to the belief and intention of the people who use the language, but this belief is often attended with errors.

(a) Thus one holds that "*A* is" expresses a composition of *A* with a predicate "existence," but in fact we are dealing with a simple affirmation of *A* thought of in the temporal mode of the present.[350]

(b) Again, one holds that "All *A* are *B*" or "Every *A* is *B*" is an affirmation. But one does not notice that the "all" involves a double negation, since "All *A* are *B*" is equivalent to "No *A* is not-*B*." It would be similar, if one were to say that the statement "Nothing is present" is an affirmation with "nothing" as subject and "present" as predicate.

(c) One believes oneself to be dealing with predications, in cases where the term viewed falsely as predicate actually modifies the subject instead of enriching or repeating it, wholly or in part. Examples: "This florin is counterfeit," "A centaur is a poetic fiction," "An airplane of solid gold is impossible," "A country-house is an object of my desire" (a desired house is not a house), "This knife is without a blade," "This man has no head."

(d) Nor are we dealing with predications where the subject is not a name, i.e., does not truly name an entity. Examples: "That something square is round is an impossibility," "The possibility of a horse implies the possibility of an animal," "The impossibility of polytheism is proved by the unity of the cosmos," "The non-being of devils has been proved," "The existence of God has been proved," "A certain possible figure is a possible triangle," "The object of one person's

hate is the object of another person's love."[351]

These names that do not really name anything include the abstracta which our language puts alongside of genuine concrete names. No statement in which an abstract form in the sense of an Aristotelian "form" functions as subject is a genuine predication. What can be thought of is not redness, but only that which is red.[352]

Such pseudo-predications nevertheless serve to express what we think. They can be transformed, without loss of meaning, into expressions in which only true names are used and in which the mental relations to the objects designated by abstract terms are clearly brought out. Instead of saying, "A round square is an impossibility," what is to keep us from saying, "There is no such thing as a round square," which expresses an apodictic denial of the thing named?

(e) Occasionally we express two affirmations in such a way that they seem to constitute *one* predication. We take as a determination of the subject something which has nothing to do with the subject and tells us nothing about it. This is the case of the so-called *denominationes mere extrinsecae.* For example, instead of saying "*A* is and *B* is not," we can say "*A* is without *B*." And instead of "*A* is and *B* is," can we say "*A* is with *B*." These are not genuine predications.

(f) Similar to some extent to the cases of *denominationes mere extrinsecae* are the cases where comparative determinations of a subject contain the affirmation or acceptance of something entirely extraneous to it. For example, "Caius is more virtuous than Titus is." That this determination is extraneous becomes apparent when we consider that as a result of an increase in Titus' virtue the statement may cease to be correct though nothing has changed in Caius. This cannot happen in the case of "Caius is more virtuous than Titus was," but even here Caius would obviously still be the same if Titus had not existed or had been less virtuous than Caius is now. Still, this relative comparative determination does supply us with some information which may also tell us something about Caius and his accidents. And we would learn something about Caius if one were to say, "Caius knows more Latin conjugations than Titus who knows only the first and the second." Although this statement, too, contains an affirmation that has nothing to do with Caius, one can no longer speak of a *denominatio mere extrinseca.*

And what about statements such as "This colored thing is brighter than pure red," where I compare a colored thing not with an actually existing red thing but with one existing only conceptually or, as one says, in my mind? Certainly, we are not dealing here with a *denominatio mere extrinseca*, as would be even more apparent if I predicated the comparative attribute "as red as pure red" of the colored thing, for this tells us as much about the subject as does the universal predicate "is pure red." A certain difference would nevertheless persist, because the former still involves a second assertion, if not one to the effect that another

red thing is likewise real, at least one that there is a person-thinking-of-something-red or that there is a distinct class of colors designated as pure red.

(g) There are many predications in which comparative attributes are combined with others, but the latter are entirely extraneous to the subject and give us additional information only about the predicate. This was in fact the case with the example "Caius is more virtuous than Titus," from which we learn that Titus is a male person, and so on. This is even more clearly illustrated by such predicates as "is armed," "is shod," "is gilded," "is manned," and the like. However, in such cases it will be possible to discover elements that prevent us from interpreting them as cases of *denominatio mere extrinseca*. Analysis of the predicative determinations would show that certain characteristics are purely comparative determinations while others are purely external.

The same applies to relative determinations other than comparative ones, both those which belong to that which is passive as such and those which belong to that which is thinking as such. A body being displaced is as such relative to a body displacing it, but when I say that a stone is being dislodged by a hunter, I am adding *denominationes extrinsecae* to the relative attribute.[353] And when I say of a man who thinks about a hunter without thinking that the hunter is married, that he is thinking about a married hunter, this is a *denominatio extrinseca* of the thinker.

Aristotle's *ens per accidens* is perhaps to be identified with the *denominatio extrinseca*.[354]

What distinguishes a relative determination from an absolute determination? The answer is this. Whenever one thinks a relative determination *in recto*, then one also thinks of something *in obliquo* at the same time. Thus, one who thinks of a person seeing is also thinking *in obliquo* of something colored that is thus seen. If that which is thought of *in recto* is a relative determination of real significance for some substance, then the correlative attribute can be a mere *denominatio extrinseca*. For example, the correlative of that which is thinking is that which is thought, and nothing is changed in the thing by reason of its being thought; indeed, the thing need not even exist in order to be thought. The same holds for the agent which is correlative to the patient. Nothing changes in the agent insofar as it is active, and a thing that produces lingering effects need not exist at all when these effects are produced. And this is why the correlatives here are *denominationes extrinsecae*.

5. Next we must consider the predications in which an *ens reale* as attribute is truly predicated of an *ens reale* as subject, and see whether these, too, may be divided into different ways of predication. In the case where the subject is an ultimate substance, the ways of predication may be divided first into purely substantial and accidental.

The latter are in turn divisible – still only so far as predications of ultimate substances are concerned – into absolute and relative (the relative determinations which are mere *denominationes extrinsecae* are not here considered).

6. All *absolute accidents* are *inherencies* [*Inhärenzen*] – as, for example, the possession of a skill or a moral virtue. Of these one says that the subject *has* the accident in question, where as of the passive affection (we will discuss these later since they are not absolute accidents) one says that the subject suffers or undergoes them. Those acquired dispositions and habits of the psychical substance which we apprehend not directly but through their effects differ from acts of thought in not having to be sustained continually by some efficient cause. It is true that some have denied the existence of these unconscious dispositions and have instead postulated unconscious acts which only occasionally re-emerge into consciousness, but this is bad psychology.[355]

Other examples of inherencies which likewise cannot be intuited are those accidents we ascribe to certain corporeal substances in analogy to the qualities reflected in our sensible intuition.

The inherencies themselves seem also to differ from one another in respect of the mode of predication [i.e., the way the substance dwells in the accident]. Only those which are specifically the same or which can be transformed into what is specifically the same are predicated in the same mode. Then they belong to the same *genus infimum*, as, for example, a virtue and its opposite moral or intellectual habit. If a red thing were to exist as a real accident and could under certain circumstances be transformed into a blue thing, both would be inherencies of the same *genus infimum*.[356] Another example of an inherent property in a particular mode of predication is the property in virtue of which a body moves along a straight line at constant velocity. Under certain circumstances this property can be transformed into another in virtue of which the thing will move at another velocity in the same or in a different direction or will come to rest.

It seems that two inherent properties belonging to the same *genus infimum*, and so predicable in the same way, can never be predicated of the same ultimate substantial subject.[357]

7. As mentioned earlier, the *relative accidental determinations* are those whereby something is thought of *in obliquo* beyond that which is thought of *in recto*.[358] (With a certain degree of specification, of course; for every entity, if thought of in the most general terms, falls equally under the concept of something.[359]) But these determinations, too, break down into several classes, and the one that is most worthy of note is above all:

(a) the class of *passive affections*.

Of the passive affections one says that the subject suffers or undergoes them.

Thus, for example, the one who is seeing undergoes the seeing. Common to them all is that they stand in relation to something active and are kept in being by its influence.

Other relative accidents involve relations of entirely different types. Before discussing them in greater detail, let us ask whether the passive affections themselves do not exhibit different modes of predication. This no doubt must be answered in the affirmative: passive affections which involve a transformation and thus lead to a product or work [*zu einer Werke führen*] belong to the substance in a way that is different from those which do not. In the latter case all that is produced exists in that which as such undergoes the passive affection. An instance of the first class is locomotion, of the second any sensation, thought, or desire.[360]

Within the first, the modes of predication seem further to differ whenever the transformations they produce are not of the same *genus ultimum*. Here, again, two affections cannot be predicated in the same mode of the same ultimate subject.

8. As for the passive affections which do not lead to a product or work, we know from experience that they neither are nor suffer transformations. (This is perhaps evident *a priori*.) Their coming into being is a simple beginning, their generation is not the corruption of a contrary, and their passing away is a simple cessation, not a corruption which takes the form of the generation of something else. This is the case, for example, when a person begins to see or ceases to see.[361]

All passive affections which do not result in transformations are known by experience to belong to the relative attributes in two ways. They are not merely related to a cause, but they are all instances of thinking, and the presentations of them *in recto* are linked with presentations *in obliquo* of that which the person thinking thinks, whether he merely thinks of it or also affirms or denies it, loves or hates it.

9. A further question is whether they can be predicated in multiple ways.

We do not need to distinguish various modes of predication in respect of the objects of thinking. This is especially apparent from the fact that the thinking of a primary object and the thinking of a secondary object are both given in one and the same ultimately unitary act, and that the one is totally inseparable from the other. But there is no reason for assuming that the different ways of relating to the object involve different ways of predication. This is most strikingly illustrated by presentations, judgments, and emotions. In all these cases, the secondary object is thought of and affirmed simultaneously and also apprehended with evidence, all in the same act; moreover, in some cases an emotion is also included.[362]

10. On the other hand, we must no doubt allow for different modes of predi-

cation depending on whether the substance of a given mental state is its subject directly or indirectly. Thus I hear a piece of news and then rejoice or feel sorrowful about it; again, in other cases where I first merely think of something, and then also desire it.

11. We have found that the passive affections which are not transformations bear a two-fold relation – one to the efficient cause and the other to the object of thought. Similarly, those which are transformations are relative not only to the efficient cause but also to that which passes away in the transformation and to that which then comes into being. (Perhaps one could even speak here of three relations, since we can distinguish that *by* which, that *from* which, and that *into* which a thing is transformed.[363])

12. These passive affections, in contrast to the inherencies, manifest themselves as accidents having no absolute character.[364] There is still another class of relative determinations to be considered. And one might ask whether they can be called accidents at all or are rather to be included among the *denominationes extrinsecae*. This is:

(b) the class of *comparative determinations*.

We say that one thing is like another or unlike it, also that it differs from the other to some extent, even to the point where the one is diametrically opposed to the other. Comparative determinations can also vary in this way: when we say that one thing is brighter than another, we may mean that it is brighter than the other is now or was some time ago; we may mean, again, that it is brighter than we or others have supposed it to be, or that it is brighter than it would be if it were pure red, or even – which perhaps comes down to the same – that it is brighter than pure red.

These comparative determinations certainly involve several objects. This is obvious when I say that one thing is brighter than another thing is or brighter than another thing had been. But this is also the case when I say that it is brighter than someone believes, for then I think of the person who believes and also, *in obliquo*, of the object of his belief. Finally, the same is true when I say that something is brighter than it would be if it were pure red. (For I am denying that it is pure red, and so am thinking *in obliquo* of a pure red thing and comparing the thing thought of *in obliquo* with the thing I characterize as brighter.) So, a *denominatio extrinseca* must be involved here. On the other hand, we surely cannot speak of a *denominatio mere extrinseca*. If we say of a thing that it is brighter than something, we are ascribing a certain brightness to it – but in an indeterminate way insofar as the degree of brightness of the object of comparison is not exactly known and the difference between one brightness and the other is not exactly stated. Because a *denominatio extrinseca* is involved, the predicate can be

lost when the object of the comparative relation varies independently and the subject itself does not suffer in the least.

And so we must say this of the comparative relations: apart from the *denominationes extrinsecae* which they may involve, they amount merely to a more or less indefinite idea of some substantial or accidental determination which falls under one of the *other* classes. Accordingly one need not assume that they involve a special way of predication. (I said "substantial or accidental" because the statement, "The soul of Caius is of the same species as that of Titus" refers, so far as Caius is concerned, only to the substance of his soul.)

The comparative determinations, then, insofar as they are not *denominationes extrinsecae,* are similar to the universals which are predicated in the same way as the individual determinations – but the comparative relations are distinguished from these by their lack of definiteness.

13. But there is another type of relativity to be considered. It is found where accidents are continuously manifold [*vielfältig*], for example, in the sensible intuition of motion or spatial extension. The intuition of every different part of the continuous manifold cannot be ascribed to a different part of the substantial subject, nor can the intuition of every temporal or spatial boundary be ascribed to a different ultimate subject. The same ultimate subject has the whole intuition and each of its parts and boundaries as its own accidental determination; every boundary, however, is intuited as belonging to something continuous of which it is a boundary. Obviously we have a type of relation which is to be distinguished from those that are comparative, or intentional, or causal. It is also to be distinguished from the relation which holds, in the case of transformation, between the thing that comes into being and the thing that passes away. But it is enough to recall what we said about the passive affections that involve no transformations, namely, that they do not differ with respect to the way they are predicated as accidents of the substantial subject. This makes clear that there is no need to postulate a particular mode of predication for the relation of belonging [involved in the accidents that are continuously manifold]. This relation is to be classified with the passive affections.

14. So far we have discussed the difference between substantial and accidental predications, and the various ways in which accidental predications differ from one another. We have not yet touched on the differences in the mode of predication of substantial attributes. One might perhaps conjecture that such differences exist: some substances, like the passive affections, depend for their subsistence upon the continuous influence of an efficient cause: hence they have a certain relative character. If there is a Creator, all created substances are of this sort. If there are spatially extended substances, of which only boundaries and in the last

analysis only points can be regarded as ultimate subjects, then they must be relative insofar as they belong to a continuum, which is not the case with spiritual [*geistigen*] substances. God's thinking could not be regarded as an accidental passive affection; rather, he would be thinking *qua* substance, and in his case an intentional relation would be inherent in his substance as such. There is, then, a manifold relative character of substantial predicates of ultimate subjects. Does this mean that we must speak of different modes of predication? Not at all. For the relevant differences between predicates exist in the subject itself, and the relation of predicate to subject in these cases is always one of complete identity. It is not the relation of something that contains the subject as part and which extends the subject in this or that way to a more encompassing entity.[365]

15. Still another question suggests itself when we compare the foregoing with Aristotle's table of categories. We have totally omitted some of his categories, e.g., those of possession, position, and quantity (ἔχειν, κεισθαι and ποσόν). This is understandable because we do not regard that which is spatially extended as an ultimate individual substance. But the same does not apply to the categories of place που and time ποτέ. Everything has a temporal determination, and every geometric point has a spatial determination.

But we must distinguish two types of temporal determination. The one type does not pertain to differences between things but to the *modes* in which we think of them or stand in other psychical relations to them. But those temporal specifications which refer to real differences are not accidental but substantial. The same is true of spatial differences.[366]

16. Let us now consider the predications in which the ultimate subject is not an individual substance but a finite plurality or – as in the case of the continuous – an indefinite plurality of substances. Here we must take into account number, spatial extension, shape, and various other determinations which belong to the whole in respect of its parts and their interrelations, and which had to be excluded from the foregoing discussion.

Bodies which are very different in respect of place can be the same in respect of size, and those very different in respect of size can be the same in respect of shape. This is consistent with saying that their complete determination in respect of place includes that of size and shape. It also includes the position of each part relatively to the others. If this spatial determination is substantial, the same must be true of the other determinations. Just as every change in respect of place must be substantial, so too for every change in respect of size, shape or position.

What entitles us, however, to maintain that the spatial determination is substantial? Does it not rather deserve less to be so designated than many other determinations? The substantial nature seems to be that which is associated with

countless particularly important common characteristics; indeed, according to J.S. Mill, this is precisely the distinctive feature of substantial determinations as such. Although Aristotle does not assert this explicitly, everything he says suggests that he held the same view. According to him, man and every type of animal and plant differ substantially, and each of these classes has countless characteristic marks.

And yet the concept of substance contains nothing that justifies such an assertion *a priori*. Inner perception shows [*zeigt*] us the substance as contained in its psychical accidents and only in accordance with the most general concept of substance. Outer perception would not provide us with more if we were not justified in regarding the differences of place as substantial.[367] For the substance cannot be individuated by the accidents, but must rather be that which, being itself individual, individuates the accidents it has or undergoes. Thus, two persons hearing can as such be specifically the same, and indeed, the same in respect of the ultimate specific differences which cannot be further differentiated in the same series. How does it come about, then, that as persons that are hearing they are individually different? Only because they have different substances as subjects.

Inner perception, then, presents its object without individuating determinations (no one can say what distinguishes the subject of his thinking from that of someone else's thinking). In contrast to this, outer perception presents each of its objects as individuated. If we now ask which of the fully specified characteristics it presents are at the same time individuating, we find that they are the differences of place. Two equally red dots are individually different only because one is here, the other there. And if both dots occupied the same place they could not be two; otherwise the *principium identitatis indiscernibilium* would be violated. And if a red dot and a blue dot occupied the same place, the red would be the blue one, i.e., one and the same thing would have these two inherent properties. But this is impossible for they are inherencies that can be tranformed into one another, i.e., they are inherent in the same way, and for such inherence a still undetermined subject of inherence is required.

One could deny that differences of place are substantial only if one could believe that it is purely accidental for something to be at any place at all or for it to be corporeal, which hardly anyone will maintain.[368]

On the other hand, perhaps it will be said that a mere place [*Ort*] without the dimensions of length, width, and depth is a non-thing, void of all attributes. But this is a serious error. Place might be free from qualitative attributes, free from passive affections, but the place-determination as such would be an entity characterized by real magnitude and real shape. It is utterly incorrect to say that the same is true of so-called empty space [*leeren Raum*]. Where it is "present," any substantial, spatial entity is absent. Empty space can be called vast only in the sense in which one may speak of a deficit that is enormous or of a privation that is great.[369]

17. Just as no corporeal substance can be without a spatial determination, so no substance at all, corporeal or otherwise, can be without a temporal determination. This clearly indicates that both these determinations are substantial. But since the time determination is wholly transcendent to us,[370] a separate proof is required to show that it exists, and why it is the same for everything that exists and specifically different from the temporal determinations of everything that has existed or will exist. The ground for this can only be an absolutely necessary, uniform, and infinitesimal change in the first principle of all created things; this principle, in preserving every created thing in being, progresses forward – always in the same sense – at every successive moment of its life from eternity to eternity. Because all things are kept in being in virtue of a given moment of the divine life, all have a character in common which distinguishes them from all earlier and later things that have been and will be kept in being in virtue of another moment of its life.

It may seem surprising that we regard both spatial and temporal determinations as substantial, although each belongs to a different series of specification. Aristotle would not have accepted this; according to him, two determinations in different series of specification [of the same individual] cannot both be substantial; they cannot both function in the way that a categorial determination does. But – according to Aristotle – there is a different sense of being corresponding to each of the categories. The unity of definition is essential to the unity of being. And in the case of every definition the ultimate specific difference has the same content as the entire definition.

That is the view of Aristotle. What are we to say about the unity of being and about substance in particular? The answer is this: A determination belongs to the unity of a substance provided the determination is of such a sort that, if it were to fall away or be varied in any respect, then the substance would become another individual.

Accidents are analogous. Consider those relative characteristics that are to be found in abundance among the passive affections. We have seen that such accidents may fall under several different series without thereby ceasing to be one.

C. SYNOPSIS AND SUPPLEMENT

18. Let us now turn to the true affirmative predications. Although each of these has an *ens reale* as subject and an *ens reale* as predicate, we can still conceive a great variety of such predications.

The subject may contain either substantial determinations alone or substantial as well as accidental determinations.

And in each case the subject may be a unitary substance or one that can be

viewed as a plurality, even an indefinite plurality.[373]

In getting a clear view of the whole, we will concern ourselves primarily with cases where the subject is a purely substantial unitary entity.

19. Such a subject can in turn be conceived in several ways according to whether it is a substance existing independently in itself [*eine unabhängig für sich bestehende Substanz*] or a substance which is so dependent upon another being that it is a part of its essence to be subject to the continuous influence of that which preserves it in its being.

Another distinction can be made according to whether the ultimate unitary substance can exist only as part of a substantial whole. Such a substance exists only to the extent that it belongs to such a whole and, like each point in a body, it would be nothing by itself. Or a substance may exist, not merely as a boundary, but by itself in which case it can be called an entity in itself [*für sich ein Etwas*].

It is clear that the concepts of the classes distinguished here can also function as predicates, but nothing belonging to one of these classes can ever be predicated of a subject belonging to another.[374]

On the other hand, determinations may be predicated of an ultimate unitary substance belonging to one of these classes. Here we will again have to make several distinctions.

Above all, it is clear that the predicated accidents often present themselves as accidental multiplicities. These can even be indefinite manifolds, as when someone sees an extended picture or hears a continuous sequence of notes. Every continuous part of the thing seen or heard corresponds to a part of the seeing or hearing.[375] The seeing or hearing can therefore be viewed, not only as a unitary accident, but also – and just as properly – as an indefinite manifold [*ein indefinit vielfältiges*]. But here, again, we shall have first to recall what we have ascertained to be true of unitary accidents.

Here we find a difference that is analogous to what we found in the case of substance, when we divided substances into those which can exist independently and those which can exist only insofar as they are kept in being by the preserving influence of another. Thus we can distinguish those accidents which are *inherencies*, or qualities, from those which can be called *passive affections*. An acquired virtue can serve as an instance of the former; perceiving, thinking, desiring as instances of the latter. The accidents belonging to the former involve transformation, those belonging to the latter involve a coming into being and passing away without a transformation.[376]

From what was stated earlier it follows that the accidents are analogous to the substances in still another respect: namely, some unitary accidents are accidents by themselves [*für sich*], while others only as boundaries belonging to an accidental whole in which parts and boundaries are distinguishable *ad indefinitum*.[377]

20. Now, it is clear that if someone gained *complete* knowledge of a substance dependent for its existence on a sustaining principle, he would at the same time think *in obliquo* of this principle. From the knowledge of the substance he would arrive at knowledge of this principle itself. The same is true of passive affections, with one difference however. He would have knowledge of the individual difference of the cause of the affections if its sustaining influence could be equally exercised by other entities.[378] A relative determination involves two entities which are thought of simultaneously, one *in recto* and the other *in obliquo*. We can now see that such a determination can be accidental as well as substantial.

A similar point may be made with respect to substantial and accidental boundaries which exist insofar as they belong to a whole bounded by them.[379] It may be, however, that the concept is grasped only in the most general way and the entity to which it applies is not specified in any way and hence not specified as being thus dependent. In such a case the relative character of the concept will be completely obscured.

21. However, substances and accidents which are not dependent in the ways stated here can likewise acquire relative determinations alongside of the absolute ones. This happens when they are compared with each other, as when a red thing is said to be less bright than a white thing.

Such comparative determinations can be made in relation to something merely thought of, or in relation to something that exists.

In the latter case, the predication obviously contains an affirmation which can cease to be true even if the subject has not altered. Obviously the subject need not thereby be altered with respect to any of its substantial determinations, and it need not be altered with respect to its accidental ones. Therefore, one can speak here of a *denominatio extrinseca.*

And what are we to say concerning the first case?

This much seems clear: in both cases we are dealing with the activity of comparing. What, then, are we comparing the thing with in the first case? Perhaps some will say: we are comparing it with something of which it is not said that it exists in reality; for this very reason the attribute is not one that can be caused to be lost merely by changing anything outside the subject and leaving the subject unaltered.

The same thing would be true of comparative determinations of the second class [they could not be caused to be lost merely by changing something outside the subject] if the object of comparison were something that cannot cease to exist and cannot be altered. This is what we have when one says that something is less perfect than God.

Furthermore, it seems undeniable that where comparisons are made one *ens reale* is always compared with another, and that both are at least thought of; and

this presupposes that something thinking of them is real.[380] The person who makes the comparison, like the person who understands the comparison, has that with which the comparison is made in himself and he thinks of something beyond the subject of comparison; so here, too, we would perhaps speak of a *denominatio extrinseca.* Whether this person is able to form a genuine or merely a surrogate idea makes no difference here.[381] But in any case, what such a determination discloses about the subject itself contains nothing that could not be expressed by a noncomparative universal determination which would belong to the class of substantial or inherent determinations or to that of passive affections.

22. These *denominationes extrinsecae* often state virtually nothing about the subject itself and the modes peculiar to it, and at any rate state far less about it than about the other entity. We have examples when one says something is in a house, or on a tree, or owned by a princess. One of Aristotle's categories, that of possession ἔχειν, falls entirely within the domain of these *denominationes extrinsecae.*

One could here add a note on Kant's so-called infinite judgment, and speak of the cases where "capable of something," "incapable of something," "able to do something," and the like are used as predicates linked with a subject. One will find that negative determinations are invariably involved in such cases as well as the thought of someone making an apodictic or assertoric rejection.

We should also note that there are many cases of equivocation, for example where the word "good" is used as a modifying predicate. A thing can be correctly loved without existing. Sometimes, however, when the word "good" is used as a predicate, it is intended to express the fact that the subject actually possesses certain properties in virtue of which it could be correctly loved.[382]

23. After all these discussions, it should be obvious that the so-called theory of categories as formulated by Aristotle (whose intent was completely misunderstood by later philosophers) will have to be replaced with something that differs from it in very essential respects. Indeed we have found that even where ultimate subjects are in question several modes of predication can be distinguished, but we also found that the sense of the copula "is" does not vary as a result. And we have found that all genuine predicates are things in the same sense, and so that being in the sense of what is an *ens reale* [*sein im Sinne des Realen*] as such does not vary with the categories.

It is true, however, that not all predicates belong to their subjects in the same way. The resulting differences in the mode of predication become noticeable only when the determinations are further specified, but once they become apparent they can be made completely obvious by additional specification. Thus we first distinguished substance from accident, and then, again, inherency from passive

affection. Were we asked whether this distinction makes the differences fully apparent, we would have no right to answer in the affirmative; indeed, I believe that careful examination would prove the opposite.

24. To begin with, not all *inherencies* are predicated of their substance in the same sense: the habit of a virtue, if it is to be classified as an inherent property, is predicated in another sense than a color would be if the color existed in reality and were an accident inherent in a substance. Indeed, not all sensible qualities of different genera are predicated in the same way.[383] Only those which can be transformed into one another, as one color may be transformed into another, are predicated in the same way. And so we should also say of a virtue and its corresponding vice that they are inherent in the same sense precisely because the virtuous man as such can be transformed into the wicked man and conversely. The only reason why our judgment is uncertain in a great number of such cases is that the real inherencies in question are beyond the range of our intuition and transcendent to us: thus, it is not the disposition of knowledge [*des Habitus des Wissens*], but the acts of apprehension that fall within our perception.[384]

25. As for the passive affections, we must first distinguish between those which do and those which do not involve transformations, or to put it somewhat differently, between those which result in a product or work [*ein Werk*] distinct from them (after being produced by the passive affection such works may continue as inherencies or substances), and those which produce no works but represent merely the passively affected as such.[385] We would have a case of the former kind where a depraved person becomes virtuous; of the second, wherever a sensation of any act of thinking is experienced. It was in this sense that Aristotle distinguished between ποιούμενον and πραττόμενον. What belongs to one class of passive affections seems not to belong to the subject in the same way as does a passive affection of the other class. Indeed, I would say that the passive affections which result in products or works belong to the subject in as many different ways as the works belong to it.

By contrast, there seems no reason to deny that the passive affections in which the whole effect is included are predicated of the substance in the same sense. But the passivity of a substance which can exist only as continuously preserved by another substance is naturally different. It must be viewed as something substantial; therefore it is not predicated of its substance in the way in which a passive affection is.

To be sure, Leibniz believed that there are accidents which can become subjects of other accidents. If he was right, must we not assume an additional type of being-within-a-thing [*Innewohnung*]? Perhaps such accidents are not to be found in the domain of inherencies, but it would seem that they are to be found among the passive affections.[386] We have such an accident of an accident when a person

merely thinks of something, and then affirms or denies it, or loves or hates it. Since the relation to the substantial subject is here merely indirect, perhaps one could speak of a different way in which passive affections belong to the substance.

26. It seems impossible that an ultimate substance could have two accidents inhering in it at the same time and in the same way; to have any part in one of these, it must be free or become free from the other.

The situation is different, however, in the case of those passive affections which are not related to an inherency as product [*Werk*], but are passive by themselves. Thus, the same soul can go on seeing when it begins to hear, and can go on thinking about one thing after it has begun to think about something else. More than that, when it sees something, it will have a seeing in which parts will always be distinguishable *ad indefinitum*. Similarly, when it perceives a succession in time – for example, when hearing a sequence of notes – this perception will always be analysable into an indefinite number of hearings in different temporal modes.[387]

When a substance has an evident perception, this is invariably a so-called inner perception; the perceiving substance in general belongs to that which is perceived, but is not always contained in it explicitly. It can have a second evident perception at the same time, and this too must implicitly contain the subject, and it can have a third perception which compares the two others and is also evident. If one of the first two perceptions falls away, then of course the one containing both will also fall away, but the second can remain individually the same. Here I assume that the perception which contains the first two is distinct [*deutlich*]. When the first two cease to be distinguishable from one another, the third can still exist as a confused perception.[388]

27. Many psychologists today fail to realize that nothing in our thinking is a transformation. Aristotle realized this and emphasized it. He viewed our mental life as a continuous passive affection, like sensation. Did he think that this passive character is immediately recognizable, as it certainly is in the case of inference and of motivated acts of will? Of course, it is true here as everywhere else that the cause cannot be specified more closely as to its characteristic quality. Nevertheless, it could disclose itself, if only in a general way, as something from which thinking or sensation proceeds as the effect; after all, even in that which we perceive in inner perception, the substance of that which is perceived is contained only in a general way. When Aristotle speaks of intellective thinking, he says that it surely must be regarded in analogy to sensation as a passive affection caused by that which is intelligible or by something similar. For sensation seems to be an affection produced by that which is sensible or by something similar.

Perhaps he believed that the passive character of sensation is unmistakable. Yet it is not quite certain that such a belief is much different from our belief in a spatial external world, whose existence virtually no one denies, even though it is not immediately assured. If it were really true that sensation disclosed itself directly as a passive affection, then the problem of the source of our concept of the efficient cause would have a simple solution.[389]

But then, what should we say about proteraesthesis [i.e., perception of movements, melodies, etc.]? Shall we say that this character of a passive affection is peculiar only to that which is sensed as present? And is this supposed to be distinctive of that which manifests itself as present? (In this case the character of passive affection in proteraesthesis, as well as in conceptual thinking, could still be assured by analogical inference.) These are questions which deserve to be investigated more closely. At any rate, I should not even venture to assert that we apprehend the passive character of sensation; and it is in the case of sensation where this could be asserted most plausibly. When we trust our memory immediately, we seem to have the thought of being indirectly conditioned by an earlier corresponding experience, and this of course involves the idea of causation.

28. Our investigation of the verbal forms of predication has led us to deny the genuineness of a number of them, i.e., to deny that they involve a true predication with a genuine subject and a genuine predicate [*eine wahre Prädikation eines Realen von einem Realen*]. We found only those to be genuine where a substance is predicated of itself or an accident of its substantial subject. But even when we restricted ourselves to cases where an ultimate subject and an ultimate substantial or accidental predicate are given, we found differences, not only between predications of substantial and accidental determinations, but also between cases of accidental predication. With reference to the latter one can truly speak of material [*sachlichen*] relations between subject and predicate, at least where an accident is predicated, because in substantial predications we are dealing only with the identity of an entity with itself. These accidental relations can fall away while their subject does not change. But they never fall away unless the accident is changed or, more accurately, falls away, and then we can certainly say that these relations are materially the same as the accidents. They fall under the same general concept.[390] We have seen again and again that, if one thing is distinguished from another as being absolute, it need not thereby lack every kind of relational character. Even God has a relative character insofar as his substance is thinking, and hence involves the intentional relation. And if he manifests himself as continuously changing, he must in this respect be the subject of a relation of continuity. In the case of that which is created we have found that several modes of relation may be combined; this is true of passive affections that are transformations and of those that are not. Now we find an additional reason for

asserting that everything accidental exhibits a real relation – namely, the relation to its underlying subject which it contains as its part. These modes of real relation further include the previously mentioned relations of patient to agent, of boundary to bounded, and of that which is thinking to that which is thought. Comparative determinations are possible in all such cases. As we have seen, such determinations apart from the *denominatio extrinsecae* they may contain, coincide with the substantial or accidental entity which is their underlying subject and functions as referent in the comparative relation, just as the entity designated by a universal attribute coincides with the individual entity.

29. Aristotle had intended to classify the categories according to the different senses in which predicates are related to the primary subject. In this respect we can and must remain true to him, even if we no longer assert as he did that predicates in different categories are not entities in the same sense. He would not have asserted this had he not arrived at the erroneous opinion that no part of an actual entity can be itself an actual entity, and that a substance which is a part of an actual accident cannot itself be an actual entity. But that this view is mistaken may be seen from the theory of the continuum as well as from our realization that the concept of thinking is unitary.

D. EXCURSUS ON THE SO-CALLED ABSTRACTA

30. What is said of names – that they name things by way of general concepts – is true only of concrete names. Only these actually name things. If so, how did the so-called abstract names come to be used in the first place?

Two views were expressed on this subject. According to some, the abstract names originate in the belief that in every transformation there is, on the one hand, something permanent which underlies the change, and on the other hand, something which is lost and replaced by another thing. In this view, then, the concrete thing that undergoes transformation is composed of two parts, one of which is permanent, and the other which is lost and replaced by something else. This latter part may be a pure accident existing in itself [*für sich*] or it may be the substantial form; then the substantial potentiality which remains permanent in change, is thought to underlie this.

The other view accounts for the abstract terms by the fact that we think in general concepts, abstracting from individuating and even from specifying determinations, Then the individuals seem to fall under the concept in respect of its extension [*Umfang*], but not in respect of its content [*Inhalt*]. The concept has a single content and so it was thought that there must be a single object which corresponds to it completely. The latter cannot be any of the individuals included in

the concept's extension, but must be a "something" that, in respect of its content, is a *part* of that which is present in the individual, and not merely in one but in all the relevant individuals. It is this something that is supposed to be denoted by the abstract name. On this view, largeness would be a part of that which is large. It is also called a condition or cause and is thus said to be that in virtue of which the large may be said to be large.

It would hardly be worth our while to try to decide which of these two views gives a better account of what led to the formation of abstract names. It is enough that nothing corresponds to either explanation.

Nothing corresponds to the first, since every accident contains the concept of its substance in that of itself, and so cannot exist completely separated from the substance if the substance remains unchanged.

Nor does anything correspond to what is said about substantial change. Where such changes are involved, no entity can be specified which would permanently underlie the change. Such a substrate was said to be something that exists merely potentially [*ein in blosser Möglichkeit Seiendes*] and is potential in relation both to that which passes away and to that which comes into being. It was taught that the concrete actual thing is composed of a thing existing potentially and of an actuality embodied in it. This whole composition is a fiction.[391] Neither that which is supposed to exist potentially nor the so-called actuality can be thought; what can be thought is only that actual entity that corresponds to the concretum.

Similarly for the supposedly unitary entity which is distinct from the individuals falling under a general concept and which is supposed to be thought by us when we think the general concept. A thing of which no specific color could be predicated would not correspond to the general concept of that which is colored.

This is why the word "color," unlike "colored thing," does not in fact name anything at all. And the same is true of other abstract names. And so the statement "Redness is a color" is not a genuine predication since neither the subject nor the predicate truly names anything.

Such pseudo-predications, however, can serve to express what we think. All of them can be transformed without changing their meaning; when only genuine names are used, then the psychical relations to the objects so named are brought out most distinctly. For example, instead of saying, "That there should be such a thing as a round square, is an impossibility," nothing prevents us from saying, "A round square is impossible," which expresses an apodictic rejection of the object named.

31. One could, however, attempt an entirely different interpretation of how the abstract terms differ from the concrete ones. One could say that both the former and the latter are genuine names of things, but that this does not exhaust their functions. As mentioned earlier, words are intended, not to be used in isola-

tion, but to be combined with one another in a discourse. Then it could well happen that the formal relations among these words in a given discourse is what is essential.

One predicates names of each other – abstracta as well as concreta. It would seem, however, that the sphere of abstract predicates is narrower than that of concrete ones. One can certainly say, for example, "This round thing was square," but not "This roundness was squareness." And the same is true of statements made in the present tense: "This round thing is red," can be said, but not "This roundness is redness." If I want to posit the concretum as subject and yet restrict the domain of predicables, I can say, "That which is round *as such* is not red, whereas it is as such shaped, bounded, and the like."

"That which is round," one could say, designates the substantial subject with all the properties that then belong to it. Thus the truth of the sentence "The round thing that is red was formerly blue," requires that the round thing that is red and the round thing that was formerly blue be identical in respect of the substantial part. But the predication *in abstracto* requires more than that, because here the accidental determination is included in that which is said to be identical.

On closer examination, however, this line of interpretation does not seem feasible.[392] One can certainly say, "A cold thing as such turns into a warm thing," but not "Coldness turns into heat." For then one seems to conceive of heat as a part of that which is hot.[393] Perhaps one thinks of it as the part which is acquired when the cold thing turns into the hot thing and is lost when the hot thing turns into the cold one. Or perhaps one thinks of it as the part which corresponds to a general concept: in this case the specific and individual attributes that are not contained in the concept but are united with it in the whole are then viewed as *other* parts of the thing. Both assumptions, however, would be errors. The second implies a kind of ultra-realism. The first, so far as accidents are concerned, involves a misconception of the relation between the accidents and the substance that individuates them.[394] And insofar as substance is concerned, it involves the delusion that a potentiality can be an entity and can be a part which can be combined with an actuality as another part.

This much, however, may be granted: the abstract names can sometimes be used in predications in order to abbreviate, as when we say that a certain concretum is as such this or that.

III. THE THIRD DRAFT OF THE THEORY OF CATEGORIES (1916)[395]

1. The metaphysician is often confronted with the task of clarifying certain concepts with references to the facts from which these concepts are to be derived.

And so he must go into the question whether we have any general ideas. It would be senseless, after all, to inquire into the meaning of any general term if general terms are not terms that are associated with general ideas. Berkeley denied that there are universal ideas, but he was wrong – otherwise we could not have the general propositions and inferences which are so abundant in science. Nor is it true that we can form general ideas only by way of an abstraction which involves a comparison between similar objects. Inner perception shows each person himself but without individuating determinations. This is why no one can specify what distinguishes him psychically from another person who thinks, loves, and hates the same things he does, although such a person is perfectly conceivable. Hence, we are dealing here with a general idea. Indeed, many psychologists have held that this generality is characteristic, not only of the ideas of inner perception, but also of those of outer perception. And so this view seems to be diametrically opposed to that of Berkeley. And it was the view of Aristotle.[396]

2. In my opinion, however, the one extreme view is as untenable as the other. Outer perception certainly presents its objects as individuated. It is directly evident that things are spatially impenetrable and that whatever appears in outer perception appears as localized. Indeed, this is why what appears to us in spatial perception appears in such a way that no more than one thing could ever correspond to the appearance. Indeed, Aristotle had stressed the principle of impenetrability and he had maintained that all sensible phenomena without exception are localized. And so he puts himself on record against his own doctrine according to which external perception is universal in character. As we shall presently see, this matter is of some importance.[397]

3. That we have general ideas cannot be doubted. Some of them are found to be universal prior to any abstraction, but most of them are acquired only by way of abstraction. And this means that they are formed by means of comparison. When we find that different things are alike then we can apprehend the feature

with respect to which they agree – the so-called *tertium comparationis*. The things so compared need not exist in reality, nor even be thought to exist. It is enough that one have an idea of them. I need not believe that there is any actual red thing or blue thing in order to know that what is blue and what is red are alike in being colored.

4. When we compare the objects of our thought, we find that they have this in common: they all can be said to be *something* [*Etwas*] in the same sense. Thus we call each object a *thing* or an *entity* [*ein Seiendes oder ein Reales*]. If this concept were not a unitary one, then the concept of thinking could not be a unitary one. But to say that there is a thinker is to say that there is a thinker of something.

5. Many philosophers have denied that several beings taken together can be one being, and they have said that it would be contradictory to affirm otherwise. But no such contradiction is actually involved. There would be a contradiction only if one were to say of one and the same individual both that it is a thing consisting of several things and also that it is one of the parts of which it consists. If one denies that a multiplicity of things is a being in the same sense in which such a part is a being, then he thereby rejects the concept of the unity of thinking. For unquestionably we think of multiplicities [*Vielheiten*] and often we cannot tell at once whether we are dealing with a unity or a multiplicity. Moreover the theory of continuity shows that the denial of multiplicities leads to insoluble difficulties which have led some to contend that nothing in space and time can be continuous.

Though a multiplicity of things is incontestably itself a thing, one may nevertheless distinguish between things which can be called a multiplicity of things and those which cannot; the former can be called collectives [*Kollektive*].

6. One should note, in particular, the difference between a universal and a collective. Collectives exist as collectives in actuality; but universals are individuated in reality and do not exist as universals. A thing which is a part of a collective is never identical with the collective. But contrast such a part with a universal which is contained as a mark in the individual idea of a thing: this may also give us a less determinate idea of the thing that is the object of the individual idea. In consequence it may also serve as a mark in the individual idea of some other thing. Hence it has been said that a universal is a conceptual but not a real part of the thing that exists in reality and corresponds to the concept. If one actual thing is transformed into another, which falls under the same general concept, it cannot thereby be said that the thing has remained materially [*sachlich*] the same with respect to one of its parts.[398] But a collective can become materially corrupted with respect to one of its parts while another part of it remains just as it had been.

If a universal may be called a logical part of the individual idea, then, by contrast, the part of a collective may be called a material part or element of the collective.

7. In addition to collectives, there is still another type of actual whole which is such that the ceasing to be of the whole is compatible with the continued existence of one of its parts. But these wholes differ from collectives in that such continued persistence is conceivable only in the case of one of their parts; we could not consistently say of any second part that it, too, could thus remain unchanged after the first part ceased to exist. We do not have a concept by means of which we can distinguish the whole from the part that is capable of existing without the whole. The relation between whole and part to which I refer is that of subject and mode [*Modus*]; where we are dealing with an ultimate subject, the relation is called that of substance and accident (or that of entity [*Wesen*] and that which supplements an entity [*zum Wesen Hinzukommendes*]). One could also speak here of an accidental collective or an accidental whole.[399]

An example of this relation involving a subject is the relation between one who thinks of a friend and who longs for a friend. If the longing were to cease the thinking of the friend could continue unchanged, but if the latter were to cease then the longing would cease as well. The thinker as thinker can be designated as subject of the longing. But the thinker is not the ultimate subject of the longing, if it is true that sometimes all thinking can cease while that which had thought continues to exist. This subject is perhaps to be looked upon as the true ultimate subject, and if this subject did not remain individually the same but were transformed into something else capable of thinking and desiring the same thing, then we could no longer speak of the same thinking and desiring individual.[400] We have said that inner perception does not present the self as individuated; that is to say that the ultimate subject of our thinking does not appear as individuated, and, therefore, it does not appear as specified down to the *species specialissima*. On the other hand, we have said of outer perception that it presents its objects as individuated – which is to say that here the ultimate subject is given with its *species specialissima*.[401] The latter can only be the spatial determination itself. Any change of place would involve an individual change in the sensible qualities, whereas the converse cannot be maintained. To be sure, one might suppose that a change in sensible quality must involve an individual spatial change,[402] just as one might suppose that if a place were deprived of all its qualities no genuine entity would be left, and that a space emptied of quality is absolutely empty, i.e., devoid of any sort of reality, and therefore cannot be thought of concretely. It is not true however, that a space deprived of all its qualities would be a purely negative thing without any real determination. Even when we are dealing with a localized thing that is qualitatively determined, not only quality but also location is a

truly real attribute; this attribute would remain the same, not only if something red instead of something blue or something hot instead of something colored occupied the same place, but also if these qualities decreased gradually in intensity and finally disappeared entirely. To be sure none of our senses would make this real determination sensibly intuitable by itself alone.[409] But our reason [*Verstand*] enables us to think of the entity in question and to think of it as individually persisting as such – as the entity [*Wesen*] which would remain when the qualitative determinations were lost.

We have said how we arrive at the general concept of being by comparing all our objects of thought with each other, and then finding that it is in respect to this concept that all these agree. We find the general concept of substance by comparing the objects of outer perception and thus arriving at the general concept of the spatial. The spatial [*das Örtliche*] is that which underlies what is qualitative and which appears to be its ultimate subject, providing the individual difference by means of its own ultimate specific determination. But to arrive at the general concept of substance, we must also compare the sphere of inner perception. Here, we found, that which is thinking is the subject of that which is desiring. But we are not justified in saying that it is the ultimate subject; what was certain was only that here as elsewhere there must *be* an ultimate subject for without it there would be no individuation in reality. If a person who sees and hears then ceases to hear while continuing to see, he seems to be quite unchanged *qua* one-who-sees, and everything suggests that he is still the same individually. Similarly when one-who-judges changes his opinion, he cannot easily shake himself free of the conviction that he is still the same individually. After all, this is why, if he is an egoist to any extent, he will be far more interested in the future of the individual in question than in that of any other, and he will act accordingly. And so we see that there, too, we believe in an entity [*Wesen*] which, as distinguished from the one-who-sees and the one-who-hears and the one-who-judges in this way or that, underlies all these as their subject and persists unchanged when they change or fall away, just as that-which-is-spatial as such remains unchanged when there is qualitative change. I can distinguish this entity from the acts of thought just referred to; in its most general concept, it is included in these just as the concept of that which is spatial is included in that which is sensibly qualitative. It appears as a real part of these things and one which is capable of one-sided detachability [*als einseitig abtrennbarer realer Teil*]. Moreover, I can compare this concept of subject with the general concept of that which is spatial. Then it appears that the former concept is even more general than the latter, although they are alike in being highly general. And in this way we have actually arrived at the most general of all concepts – that of a substance as such [*zu dem aller-allgemeinsten Begriff einer Substanz als solcher*].[404]

Some may think that both in the mental and in the corporeal sphere the general

concept of substance as subject of accidents is always specified to an extent: that just as the object of outer perception is presented as an extended substance, the other is presented as unextended. But this is not the case. It is one thing not to be presented as extended, and another thing to be presented as unextended with the positive attribute of zero-dimensionality. What speaks against the latter possibility is the fact that many can accept a materialistic view of the thinking substance. Even Plato and Aristotle who opposed materialism found it necessary, not only to argue against it in detail, but also to make important concessions to it by postulating a corporeal organ as the subject of a part of our mental activities.

In our view, the most general concept of substance comprises the following: both spiritual and corporeal substances; also topoids of other numbers of dimensions; and further collectives as well as ultimate substances. Every corporeal continuum would be a collective and not an ultimate substance; only a punctiform boundary of a continuum could be such a substance. Such continua would be collectives of indefinite multiplicity.

8. To grasp the foregoing more clearly, note that it is one thing to distinguish a thing as an element in a collective and thus also as an element common to two collectives, and it is another thing to distinguish a thing as a universal mark in an individual idea and thus also as a mark common to two individual ideas. In the first case, we are concerned with distinguishing a subject within the encompassing mode [*in dem Modal befassenden*] and therefore also a subject within the encompassing accident [*in dem Akzidentellbefassenden*].[405] As in the case of finding the elements within a collective, we are concerned here with distinguishing a real part – except that in the present case, we don't have a second real part but only a modally extended whole. Suppose that, with the help of a memory image, we compare a red thing and a blue thing both thought of as being in the same place. This comparison leads to the idea of a *colored thing to be found in this place*. We then arrive at a universal mark, which includes the idea of something individually determined, and this latter appears as a real part of a modally encompassing whole, which as a whole can be thought of only in universal terms.[406] The whole is *this spatial thing*. Suppose now I compare *this* spatial thing with *that* spatial thing – where that spatial thing is also distinguished as a part of a modally encompassing whole common to a red thing and a blue thing thought of as being in the same place. Then I acquire the general concept of a *spatial thing as subject of a colored thing*. At the same time, I recognize that this spatial thing, as well as that one, is completely specifically determined and is individuated in this complete specific determination. And therefore I see that it can have no further subject – and this is a characteristic feature of substance.[407]

That which is spatial in general also has this distinctive property. And yet the concept of the spatial, whether we think of it as individuated or in general terms,

is not the general concept of substance. To reach that concept we must make a further comparison with what is presented by inner perception. Inner perception presents me *to* myself as a thinker, a judger, a desirer, a hearer, one who sees, and so on, without individuation; nevertheless it leads me to distinguish in it a being as subject of each of these things and thus contained in them modally. This situation involves the distinction of a real part which is the same, for that which it perceives simultaneously sees, hears, desires, and so on. It manifests itself as subject of all of these and as something that can itself have no subject. If we now compare the concept of this being thought of in such general terms with the concept of the spatial in general, we find that the latter presents itself as species of the former, and in this way we realize that the former is in fact the most general concept of entity or substance that is conceivable.[408]

9. Distinguishing the substance in the accident is very different from distinguishing the more universal attribute in one that is more specific. Consider, for example, how we distinguish the red and yellow components in the color orange and how we apprehend the chromatic quality in the latter. Or consider how, in the impression of a complex odor, we distinguish the presence of a simple odor, on the one hand, and the general character of the olfactory impression, on the other. Also in sensations of taste we apprehend both the general character which they share with other tastes, and the presence of various simple sensations such as those of smell, temperature, and touch.[409] One who notices red and yellow components in orange, apprehends different ultimate species; also one who, in the red-that-is-here [*im hierseienden Rot*] distinguishes that-which-is-here-as-such [*das Hierseiende als solches*] from that-which-is-red-as-such. By contrast, when that-which-is-spatial-in-general is distinguished in that which is red, we distinguish not two ultimate species, but a generic concept which, unlike the concept of the colored, is not a genus of red. Similarly when, in the accident that-which-is-thinking, we distinguish the subject of this accident, we do not distinguish a second *species specialissima*. What we distinguish is a genus under which this accident does not fall, bu which is as inseparable from the concept of the accident as is the concept of that which is spatial from the concept of that which is red. This concept of that which is spatial is that which, in its ultimate species, imparts individuation to that which is red and is modally encompassed in it.

10. The substance-accident relation is today misconstrued in various ways. The shift of meaning introduced by Kant – who completely misunderstood the traditional term substance – was partly responsible for the resulting confusion. Others contributed to it by identifying the concept of substance with that of the Kantian thing-in-itself, and identifying the concept of accident with that of the Kantian phenomenon. Eventually substance came to be regarded as something

entirely unknowable in itself. Locke had held that we have no intuition of substance: it is something that is wholly inferred. Some philosophers – for example, J.S. Mill – held that certain attributes are indeed substantial, but differ from the accidental attributes only in being linked with a greater number of properties that the thing has in common with other things. For example, more of such properties are so connected with the attribute oxygen or with that of animal than with the attribute round. The attribute thus supposed to be substantial turned out in most or in all cases to be a compound of attributes which are themselves accidental. And this led to the view according to which substance is distinguished from accident only as being the totality of all accidental attributes in combination. But how would such a combination constitute a substantial unity? As a collective, say, is constituted by its elements? If so, this would approximate the view put forward by Herbart. He must have known that this is not what is commonly intended by the distinction between a substance and its accidents; nevertheless he declared that *one* thing with *many* attributes is a contradiction in terms. He thus replaced the distinction between substance and accident with the assumption of a multiplicity of things. The result – though not intended and not immediately obvious – was to interpret the matter in such a way that the substance became a logical whole and its accidents logical parts; the whole would seem to be only incompletely determined by each of its accidents, just as a given individual thing is incompletely determined by any of the general concepts under which it falls.[410] It is this interpretation that we must examine more closely.

11. To begin with, we can certainly distinguish the following two relations. There is, first, the relation in which a concept such as that of *red thing* stands to the concept of *colored thing* and in which the latter, in turn, stands to the concept of *sensibly qualified thing* and in which perhaps this latter stands to the concept of *that in which something inheres*, and so on; here we ascend from a *species specialissima* to more and more general concepts. Then there is, secondly, the relation in which the *species specialissima* red stands to the *species specialissima* warm, when these two are combined together.

Another example which illustrates the distinction in this: on the one hand, we may compare *one who is affirming* with *one who is judging*; and on the other hand, we may compare one who is affirming an object with one who is loving that object, where the love and the judgment are combined with one another. In the first case we are concerned with the relation of a *species specialissima* to its genus; in the second, we are concerned with the relation of one *species specialissima* to another.

Now, it is clear that adding a generic determination to a specific one cannot contribute anything to individuation – the latter is always contained in the specific difference. Nor can the addition of a *species specialissima* which is not itself

individuated contribute to the individuation of another.[411] Thus, the attribute red-and-warm is not sufficient to individuate the thing to which it belongs; and the same is true of affirming and desiring a given object. And so no combination of *species specialissimae*, however many there may be, can result in individuation unless one of these has its individual differentiation in its specific differences.[417] But if it does thus possess its individual determination, it is distinguished in a most significant way from all those species which do not possess it. It cannot be combined with any second species which also has an individuating determination in its specific differences. And those which are not thus individuating require such connection in actuality. What is thus individuating cannot be given conceptually unless the concept of substance is also included in it. If it is not included in *species specialissima*, then it is included in a more general way or at least in a way that is the most general of all.[413] It is in *this* way that the general concept of that which is red contains the general concept of that which is spatial, and the concept of that which affirms or accepts contains the concept of a substance which affirms or accepts.

12. Of the accidents, we call some properties [*Eigenschaften*], and others passive affections [*passive Affektionen*] or undergoings [*Erleidungen*].

To explain the concept of *properties*, we point to that which is common to what is colored, to what sounds, and also to taste, odor, heat, and the like. In each case, we have what may be called *a sensibly qualitative thing* [*ein sinnlich Qualitatives*]. Along with the sensibly qualitative, we also include dispositions [*disponierende Qualitäten*] and habits of which we have no intuition: these are things we postulate to account for certain observable phenomena – for example, the disposition to moral virtue and a habit or skill. Perhaps the fact that a body will remain at rest or continue to move in accordance with the law of inertia gives us reason to assume that there is a lasting disposition which is produced by an external cause.[414] All of these fall under the concept of a property – that is to say, an accident that is so connected with its subject, that it does not require constant causation by an active principle in order to hold of its subject.

By contrast, the *passive affections* are accidents which are not supported by the subject alone, but require for their persistence the causation of an active principle. This class includes all thinking – thus all seeing, hearing, sensing, desiring; we think a thing only as long as we are moved to the thinking.

In some cases, that which moves us to think is noticeable in respect of its distinctive character; for example, when we infer something, or when our will is motivated, or when an axiom is known to be true *ex terminus*, or when love arises from the idea of its object.

In other cases, however, the efficient or moving cause is noticeable only in an entirely general way, so that the passive affection has merely the character of

being produced by something or other. This seems to be the case with seeing, hearing, and other sensations.[415] It is not correct to say that we are acted upon by the primary object of perception. The primary object is different from the cause of the sensation though its appearance is simultaneous with this cause. Ordinarily in perceiving we are inclined to assume that something is the cause of the sensation and to identify this cause with the primary object. Even after experience has long taught us, in the clearest way possible, that the primary objects cannot exist in reality in the way in which they appear to us, we have great difficulty in freeing ourselves from this illusion.

13. The undergoings are of two sorts. Some involve a further result [*Werke*] which is distinct from the undergoing itself but which is brought about in the causing of the undergoing. But other undergoings are such that the effect that is involved is nothing in addition to the undergoing itself. The former type of undergoing is illustrated by acceleration, and according to what has been stated above, by any motion from one place to another.[416] These affections are called transformations.[417] The second type of undergoing is illustrated by sensation and thinking.

14. Properties also fall under several genera, each of which holds of the subject in a different way; but the *species specialissimae* of each genus holds of its subject in the same way, however different they may be from one another. Two properties of this sort can never hold of the same subject at the same time. A spatial substance, for example, cannot be both red and blue at the same time and place. By contrast, there would be no contradiction in saying that it is red and hot at the same time and place.[418] Similarly a body cannot have at the same time that inertial property which predisposes it to remain at rest and also that inertial property that keeps it moving in a given direction at a given speed. By contrast, such an inertial property would be perfectly compatible with the property of redness. Properties of the same ultimate genus can be transformed into each other, and all properties which can thus be transformed into each other are incompatible in the same subject.

15. The passive affections which involve a further result differ in genus from those which do not. And if the further results which they involve differ from each other in respect to the ultimate genus, then they, too, differ from each other in respect to the ultimate genus.[419] These further results, if they are of the same ultimate genus, are incompatible in the same subject at the same time; and so, too, are the transformations that involve these results. Thus, a thing cannot be illuminated and darkened simultaneously.

16. The situation is quite different in the case of the passive affections that are not transformations. They are certainly compatible in the same subject even though they are homogenous.[420] Thus we can think about various things simultaneously and combine presentations with presentations, judgments with judgments, inferences with inferences, and intentions with intentions.

Yet some passive affections are incompatible in the mental domain. Thus qualities which are incompatible in reality, i.e., *species specialissimae* of the same genus filling the same place, are also incompatible with the same temporal mode in the intuitions of sense. (It is true that one and the same place seems to be filled by red and blue when we perceive them together as violet, but the ancient Ionian philosophers had seen the explanation for this phenomenon: we are unable to distinguish between imperceptible particles situated next to one another.[421]) Again, explicitly stated contradictory judgments are mutually exclusive.* Nor do explicitly conflicting acts of will or choices or acts of preference occur in the same mind at the same time.

But these restrictions cannot be viewed as being consequences of the alleged impossibility of simultaneous mental affections of the same genus.[422] For this to be the case the range of incompatibility would have to be far more extensive than it is in fact. These limitations are doubtless rooted in some peculiarities of our psychical nature [*unserer seelischen Natur*], which, like the peculiarities themselves, lies beyond our intuition; and they seem to be highly teleological. This is especially obvious so far as the psychological incompatibility of explicit contradictions is concerned. That contradictory judgments cannot in fact be made simultaneously, is not self-evident;[423] and where the contradiction is not noticed, it may well happen that one's thought is contradictory. There is certainly no lack of absurd assertions.

I believe I am entitled to say that the passive affections which are not transformations are all linked with their subjects in the same way.[424]

And so one would err if one assumed, as Aristotle did, that the passive affections are analogous to properties. Aristotle believed that we have a certain number of sensory faculties, and also that we have an intellectual faculty which apprehends intelligibles, just as the sensory faculties apprehend sensibles. According to him, each sensory faculty can be activated only by *one* actual sensation at a time, and the intellect, similarly, can think only one intelligible at a time. Here he was guided by the analogy with incompatibilities in the domain of properties and transformations. In this connection one may note that visual

* By contrast, implicitly contradictory judgments can be simultaneous, and the same is true of implicitly conflicting emotions and volitions. But so far as sense perception is concerned, those who held that conflicts can occur here are certainly wrong. Such conflicts do not occur here any more than in reality. And they are excluded from inner perception, which is incorrigible and presents us only with reality.

fields compete with one another for our attention, that louder noises drown out softer ones, and that similar phenomena occur in the domain of gustatory, olfactory and other homogenous sensations. The incompatibility of simultaneously apprehended intelligibles seemed to be confirmed by the incompatibility of simultaneous sense impressions of the same genus, which was regarded as firmly established.

This doctrine, however, has difficulties some of which Aristotle himself noticed: it is doubtful that he succeeded in overcoming them. Even at the sensory level it was apparent that we see different colors simultaneously, if not at the same place, then at least one next to the other. To account for this fact, Aristotle assumes that the organ of sight is spatially extended, and that we perceive the adjoining parts of a picture with different parts of the organ; but this cannot be correct. And even if the difficulty were resolved in this way, there would remain another one which Aristotle apparently failed to notice. When we perceive a succession, for example, as when we listen to a speech, follow a moving object, or the like, we have simultaneous presentations of contrary qualities successively occupying the same place, the one as present, the others as having existed a short time before. Aristotle ascribes memory to the central sensory organ, and it is clear that he also ascribes to it perceptions of rest and motion, and, it would seem, all perceptions, but he does not make it sufficiently clear how the simultaneous sensory functions are supposed to be divided among the different parts of the central organ. According to him, we can distinguish one sensible from another because the sensory affections are contiguous, either in space or in time; and this is another very dubious assumption.

Further difficulties arise in the domain of intellective thinking. These start with the categorical judgment: how could one concept be predicated of another if it were impossible to think both at the same time? Aristotle attempts to resolve the difficulty by assuming that the mind thinks first the one and then the other concept, and that the two are contiguous in the *now* which is in a certain way dual. But what happens in the case of an inference involving more than two concepts? Aristotle seems to believe that the two intelligibles combined in the one categorical judgment become one intelligible, and that the unity of the intellectual act is secured by further combinations of intelligibles. If this were the case, a highly intricate plan worked out in detail would have to be regarded as one enormously complex intelligible. Surely, no explicit demonstration is needed to show that, for all his acumen, Aristotle did not manage to extricate himself from the difficulties he ran into because of his all-too-bold reliance upon the analogy with the domain of properties and transformations.

17. What we have said is connected with this difficulty.[425] How can we know that a given mental affection is *not* present in us, for example, that we do *not*

hear, or do *not* believe, or do *not* desire? If we were to say, "Because I do not notice it," one could ask, "How do you know that you do not notice it?" Moreover, "not to know that a certain thing is," is not the same as "to know that a certain thing is not." Were one to ask how we can ever know that something is not [of a certain sort], the answer would seem to be: by way of comparison. One thinks of the corresponding positive characteristic and of something that has it; one then compares this latter thing with the other [the thing that lacks the characteristic]; one sees that it is the thing with the positive characteristic that makes the differences; and one thereupon correctly denies this characteristic of the other thing. Still, this answer would be insufficient to account for the difference were not the following things certain: every mental affection is accompanied by a perception of the self [*eine Selbstwahrnehmung*]; psychic affection must be at least implicitly contained in what we notice[426] in ourselves; and if such an affection is at all explicitly noticeable, then as soon as our attention were directed upon it, it would also be explicitly noticed.[427] I say, "if it is at all explicitly noticeable" in order to make clear that this is not true of every mental affection. Thus it is not true of seeing a tiny spot of color or of hearing an extremely faint note; nor is it true of the individual elements that enter into a very complex feeling of pain or pleasure. But the situation is entirely different when I ask whether I believe something or am determined to do something, or the like.[428] In this domain the so-called philosophy of the unconscious finds that the gate is barred; and we must reject the opinion of those who say that our store of memories is to be accounted for by appeal to the unconscious persistence of passive affections, rather than by appeal to the properties we call dispositions. Indeed, such an opinion leads to contradictions, for if all mental states were to preserve themselves, then our consciousness of them would also be preserved – since this consciousness is itself a mental state.[429]

It is self-evident that one who thinks a primary object implicitly must also think and perceive implicitly that he *is* thinking it. Further, it is self-evident that, if one thinks a primary object explicitly, say accepting or rejecting it, then one explicitly thinks and apprehends – and thus notices – that he is thinking and affirming or rejecting it. To notice something and at the same time not to notice that one is noticing it is a contradiction in terms.[430]

18. We call relative those determinations which we cannot think of without thinking, in a manifold way, of something *in modo recto* and of something *in modo obliquo*. Take, for example, the determination, *one who is thinking*, whether it be in general or in some specified way. Whoever thinks *in recto* of one who is thinking *as* one who is thinking also thinks *in obliquo* of something which is the object upon which the first thinking is directed. One calls this an intentional relation. Again, one who thinks *in recto* of something *qua* acted upon must

think *in obliquo* of something acting upon it. Here we speak of a causal relation; more accurately, a relation to a *causa efficiens*. Again, one cannot think *in recto* of a boundary *qua* boundary without thinking *in obliquo* of something of which the boundary is a boundary. We may call this a relation of continuity. Every accident, once its subject has been clearly distinguished, exhibits a relation of dependency between the accident viewed as a modally enriched whole and the substance as a part that is contained in this whole. We could call this a categorial relation, and then differentiate in various ways according to the way in which the accident holds of the substance. Again, when an element is clearly distinguished in a collective, one could speak of a relation between the whole and the part. There are also comparative relations, as when one speaks of the like, the unlike, the opposed, and the more or less distant.

19. It is clear that the terminus to which the relative determination is related need not exist in order for the relative determination to exist. This is quite obviously the case with the intentional relation between the person thinking and that which he is thinking, between the person denying and that which he denies, and between the person desiring and that which he desires. In this respect, the relation of that which is effected or acted upon to that which is causing or acting is very different. Here the terminus must be simultaneous with that which is acted upon, and that which is acted upon exists as such only as long as that which is acting upon it exists as such. The same is true of the relation of continuity which holds between the boundary and the continuum it bounds. To be sure, so far as the *temporal* boundary is concerned, the continuum exists as present only in respect of this boundary, but so far as what is otherwise contained in its concept, we must be able to say in some other temporal mode that it did exist, or will exist in the future.

Needless to say, in the cases of the categorial relation and of the relation between the collective and its elements, the existence of the relatum is asserted together with the relation. As for the comparative relations, different cases are to be distinguished. Of one says, "Karl is taller than Fritz," then this means that Karl is taller than Fritz *is* – and here affirmation or acceptance of the relatum is obviously included. If one says, "Karl is taller than Fritz was a year ago," then the affirmation of the relatum is also included, but in a temporal mode other than the present. By contrast, if one says, "Karl is less than two meters tall," this seems to say no more than "Karl is shorter than he would be if he were two meters tall," which does not imply that there is, was, or will be something two meters tall. What is presupposed is only that the expression "two meters" expresses something that is connected with the idea of tallness. In this connection, some have distinguished between relative determinations and relations, using the term "relation" only in cases where the affirmation of the relatum, whether in the

modo praesenti or in some other temporal mode, is implied by the relative determination.

20. Some of the relations just referred to are treated as a separate group under the term *causal* relations. But it has often been pointed out that this term is not univocal and that it is used in several senses.

(1) Thus we should single out the cases where one might speak of *material* causation. And these cases turn out to differ appreciably from one another.

(a) To be listed here are first of all the cases involving a collective. The parts of the collective present themselves as its material causes; each part contributes to its existence. In particular, this is true of its ultimate elements.

(b) Also to be listed here is the relation of that which is the subject to that which modally contains the subject, and more particularly, the relation of the substance to its accidents. The latter relation differs from the former only in this: unlike any element in a collective, the subject is not combined with another part which could exist after the subject has fallen away.

(c) Further to be listed among the material causes is the relation of a boundary to the continuum to which it belongs. This relation has peculiar characteristics which have surprised those who studied it. The boundary viewed as element [*Element*] of that which is continuous must be viewed as element, not of a single continuum, but of countless continua, each of which contains other continua as its parts. No continuum can be conceived apart from the boundaries belonging to it, nor can any boundary be conceived apart from a continuum, indeed, apart from countless continua, to which it belongs as boundary.

What is peculiar to this sort of dependence, however, is this: that the boundary does not depend for its existence upon any particular one of the continua that may be specified. It depends only in a general way upon *some continuum or other* among the specifiable continua to which it belongs. Since it is a part, it is smaller than any definite finite magnitude; and so one has called it indefinitely small and even infinitesimally small. An infinitesimal conceived as a determinate individual quantity is an absurdity. The boundary, then, depends, not upon any particular continuum, but only upon there being a continuum – indeed countless continua, which are alike in that the boundary belongs to them as boundary.

Now, one can hardly say that, just as the boundary is a material cause of the continuum, so, too, the continuum is a material cause of the boundary. Yet one might speak of a corresponding causality on the part of the continuum. One could call it infinitesimal causation, which would make it apparent that the infinitesimal is not actually the boundary itself. The boundary is always to be thought of as being individually determined; but the infinitesimal is that which is thought of only in an indefinite way. The thought of the boundary includes that of the infinitesimal *in obliquo* – just as the thought of that which is passive

includes the thought of that which is active, and the thought of that which is thinking contains the thought of that which is thought. That which is contained *in obliquo* may in all these cases be thought indefinitely; in the case of the continuum it is always thought in this way.[431]

We have said, in the case of the substance-accident relation, that there is no second part, which together with the substance, comprises that accidental whole of which the substance is a part. Similarly, the whole, which has the boundary as one of its elements, cannot be formed by the boundary in combination with some part that is separable from the boundary. In the continuum boundaries are distinguishable *ad indefinitum*, as well as parts which are separable from one another. But there is no part which is such that it would remain after subtraction of the boundary and which combines with the boundary to form the whole continuum.

(d) When we form a collective composed of two different persons, one hearing and one seeing, then the one who hears and the one who sees are both material causes of the collective. But what are we to say when one and the same person sees and hears simultaneously? What we have here is a modal collective [*ein Modalkollektiv*], as it were, and in this case the subject is obviously its material cause in the sense mentioned earlier. But the hearer as such may yet appear to be in a certain way a material cause of the one who sees and hears at the same time; he is a part of the latter and is thus a precondition of it and is not conditioned by it. He can continue to exist unchanged after the whole has ceased to exist.

In the perception of a picture we have to distinguish as many parts in the perception as there are in the picture. Hence we are dealing here with something continuous which modally contains a unitary subject. Therefore here too we distinguish boundaries comparable to those of a substantial continuum. Everything we have said about the characteristics peculiar to the boundary also holds here, with this difference: here every boundary contains the same subject in its entirety, and for this reason that which is continuous does not, strictly speaking, present itself as a continuous plurality [*Vieles*], but as a continuous manifold [*Vielfaches*].

(2) These relations to a material cause are to be distinguished from other relations, one of which is called the relation to an *efficient* cause. Everything passively affected stands in this type of causal relation to that which produces the affection – i.e., to what is cometimes called the moving principle. It often happens that a moving cause, while acting upon something, is itself acted upon. The passive affection so produced does not belong to the cause *qua* moving, but to the cause *qua* moved. There are cases of interaction, which involve two agents and two patients.

(3) We have noted that some passive affections involve a further result [*Werke*], and some do not. Again, some are transformations, some are only transitions to actual existence. In the former case, the generation of one thing is simul-

taneously the destruction of another thing, but this is not so in the latter case.[432] And here what could be called destruction is a mere cessation, and not as such the beginning of another thing. Where we are dealing with a transformation, we have before us not only a relation to that which is active or moving, that is to say, to the cause, but also a causal relation to that from which the new thing is produced. Thus, when something is shifted from one place to another, a-thing-that-is-there is produced from a-thing-that-is-here. Similarly, a cold thing may be produced from something that is warm, and water and pure oxygen may be produced from hydrogen peroxide.

The expression "out of which" used here has also been used with reference to the causal relation of a collective to its elements. But those who do so, it would seem, often fail to realize that the causal relation involving the production of one thing from another thing is quite different from that wherein the part contributes to the whole. The thing-that-is-there is produced from the thing-that-is-here, but does not contain it as part. Nevertheless the property of being here in this case is truly a precondition of the property of being there. Propelled with the same force, something located in another place would not get *there* in the same time. Therefore it would not be correct here to speak of a material cause.

Nor would it be correct to speak of an efficient cause. That which is active as such can persist unchanged, but plainly that which is being transformed cannot. It passes away in being transformed, and this is true whether the process is abrupt or gradual, as in locomotion. And yet here we can say that what is coming into being and what is passing away must be simultaneous just as that which moves and that which is moved. So long as the transformation is taking place that which is coming into being and that which is passing away must be in temporal contact, whether the transformation be sudden or gradual. One could speak of a relation to a predisposition or to the predisposing cause of a relation (the transformation relation) to a "from which" – that from which something comes into being. Like the efficient cause, or the cause-by-which, this cause-from-which is a cause of generation and thus an external cause, whereas the material causes are causes of continued existence and are thus internal causes.

Many believe that wherever an activity takes place, there must be something that undergoes a transformation. It is because of this prejudice that they deny the possibility of a creation out of nothing. Yet it is interesting to note that no directly experienced instance of causality is an instance of transformation. Nor do we derive this concept from outer perception: we form it on analogy to that of the efficient cause. In the supposed intuition of motion we cannot tell whether a given motion is continuous or interrupted by imperceptibly short periods of rest.[433] And even if the motion were continuous, we still could not affirm that a cause of earlier and later parts is phenomenally given; for, on the assumption that every successive part is produced by an entirely new creative act, the per-

ceived phenomenon would be the same.

Transformations occur in accordance with this law: they always involve transitions from a *species specialissima* to one that is nearest to it and hence belongs to the same proximate genus.

(4) We have distinguished internal and external causes. Others have carried this distinction further – singling out a formal cause as an internal cause of persistence and a final cause as an external cause of coming into being. But we cannot go this far.

The assumption of the formal cause is connected with the failure to recognize that, in the case of an accidental whole no second part is added to the subject and that only the accidental whole itself is opposed to the subject as part. The second, formal part was thought to be added to the subject; the subject was then viewed as a material part and the two together were thought to constitute a whole. The formal part, however, was a mere fiction, although a fiction that so naturally suggests itself that the formation of abstract names seems to be connected with it. That which is large, one says, is large in virtue of its participation in largeness, and so on. Once the forms had been introduced as parts and as internal causes of the accidents, one then looked for a further analogue of the accidental compounding of substantial subject and accidental form. It was assumed that such an analogue is to be found in the domain of substance itself: it was thought that one substance could be transformed into another; one was then led to hold that a corruptible substance is compounded out of substantial matter and substantial form, the latter being taken on when the substance comes into being and lost when it passes away, but the substantial matter remaining unchanged. The substantial matter was then supposed to be nothing more than a substantial potentiality.

It is clear that, if the doctrine of forms is confused in its application to accidents, it is even more so in its application to substances. That a permanent subject must underlie every change is a delusion, but one that is wide-spread. In the modern era it was shared by Locke, who went so far as to maintain that, if nothing remains of that which passes away, then one cannot say of that which comes into being that it is produced out of something else. Here he seems to have been misled by the ambiguity of "out of which" mentioned above.[434] Kant also presupposed a general law according to which a permanent subject underlies every change. Unfamiliar with the true meaning of substance, he identified it with this permanent subject, and proceeded to treat the substance itself as something absolutely unchangeable. As for the general law, he believed that it is not evident to us, but that it forces itself upon us as a synthetic judgment *a priori,* This particular error is typical of Kantian philosophy as a whole.

Like "formal cause," the expression "final cause" is a misnomer. The final cause was thought to be one of the external causes, and a cause of coming into

being. But it consisted in nothing else but that which an intelligent efficient cause thinks of and loves and, believing it to be within its power, undertakes to bring about.

It has also been said that the final cause has a twofold existence – in the intellect [*Verstand*] of the master-workman, and as the form he imprints upon the work he produces.[435] The latter in effect identifies the final cause with the formal cause which we have already discussed. And the former would mean that the final cause is something that has no existence at all, save in the improper sense in which a thought exists in someone's intellect. So far as "existing in the intellect" is concerned, even what is completely absurd can thus exist, for people do think of that which is absurd. What actually exists in these cases, however, is not that which is thought, but only that which thinks it. Therefore only the latter can be designated an external cause – and, indeed, in the sense of being an efficient cause or active principle.*

Of course, an intelligent cause of this sort has a number of characteristics that other causes do not. When a person devises a plan, then his thoughts and his love of a certain thing for its own sake move him to think of something as a means to realize his plan and then to desire it as a means. Here an act of thinking or loving – but not that which is thought or loved – brings about another thing. Whenever a person thinks or wills something, he stands in an intentional relation to something as thought of or willed. It is to the thinking or willing person that that which is brought about is causally related, if only indirectly.

It may be noted here that the final causes were said to include the so-called model or prototype – a subsisting thing which is apprehended by an intelligent being and which so pleases him that he decides to create something like it. Here, too, we are dealing with a particular sort of indirect causation.

Some would further distinguish final cause in the sense of "that which is to be brought about" [*Wonach*] and final cause in the sense of "that for the sake of which" [*Wofür*]. If I aspire to secure a post for my friend, then the post is a final cause in the second sense. Needless to say, in showing that the term cause is used improperly in the case of "that for the purpose of which," we also show that it is used improperly in the case of "that for the sake of which."

21. In view of the ambiguity of the term cause, one cannot help asking how all its widely divergent meanings came to be associated with the same word. After

* This shows that Kant's doctrine, according to which one may speak of cause and effect only in the domain of phenomena, is in error. Contrary to Kant, cause and effect pertain only to what is real. Phenomena cannot be said in the strict sense to exist. They exist only in an extended or improper sense. And when we say they begin, continue, or cease to exist, we are speaking in an extended sense. Strictly speaking, only an actual thing – the thinking or experiencing person – exists, and this person begins, continues or ceases to experience.

all, this homonymy can hardly be put down to chance. Perhaps the cases where we speak of a material cause and those where we speak of an efficient cause are analogous to this extent: in the former cases, the effect cannot *persist* without the cause (though the cause can persist without the effect), and in the latter cases, the effect cannot *come into being* without the cause (though the cause as such could exist even if it produced no effects).[436] This is why the effect seems preconditioned in one case with reference to its coming into being, and in the other case with reference to its persistence, even though it is preconditioned in two very different ways. Similarly, the boundary is a precondition of each of the continua to which it belongs, and so can truly be regarded as a material cause of persistence. Only in the case of reciprocal infinitesimal causation could one have misgivings about speaking of a precondition. A reciprocal *precondition* would seem to be contradictory, and so perhaps one can speak only of a reciprocal *condition*. This fact, as well as the fact that the infinitesimal lacks individual determination, may account for our hesitation in using the term cause with reference to the boundary.

22. The term cause has also been applied to natural laws and to general truths under which more particular truths are subsumed. For example, one may say that the cause of a body falling is the fact that all bodies are heavy or are governed by the law of gravitation. Similarly it has been said that the fact that the sum of angles in a certain rectilinear figure is equal to two right angles is caused by the fact that the figure is a triangle; and the fact that a square constructed on the triangle's longest side is equal to the sum of squares constructed on its two shorter sides is the cause of the fact that the triangle is right-angled.

To realize how improperly the term cause is used in such cases, it is enough to recall that a law is not a thing and therefore cannot be said, in the strict sense, either to exist or to cause anything. To say that a law *is*, is to use the *is* just as improperly as one does when one says that an impossibility *is*. To say that the sum of angles in every triangle must equal two right angles is to say no more than that a triangle which is not such that the sum of its angles is two right angles is impossible. But it is an error to believe that we are here expressing an affirmative judgment having as its object the impossibility of such a triangle.

One also speaks of the ground of knowing [*Erkenntnisgrund*]. This expression has two sense. In each case one is speaking of that from which we infer something. But in the one case the ground of knowing may be that which is prior by nature and one then makes a deduction from a more encompassing law. In the other case it is merely that which is prior for us: we reason only inductively from a particular case and thus only with more or less probability.

What distinguished a primary law [*Grundgesetz*] from a secondary law is the fact that the latter is a combination of several primary laws. For example, the law governing the motion of a planet around the sun is a combination of the law of

inertia with the law that every planet falls under the general concept of inert body, as well as with the laws of gravitation according to which the planets and the sun are masses separated by a given distance, and the attraction between two bodies is directly proportional to the product of their mass and inversely proportional to the square of the distance between them.

That the sum of angles in a triangle equals two right angles is another secondary law, based on the simpler laws that the magnitude of any angle is measured by the difference in the directions of its sides, and that the sum of angles drawn about a point in all directions equals four right angles. Hence it follows that the three interior angles of any triangle plus each exterior angle is equal to six right angles; and since the sum of angles obtained by revolving a produced side of the triangle until it returns to its original position is equal to four right angles, the sum of the interior angles is six minus four, and therefore two right angles.

The cognitive ground *quo ad nos* is often a mere matter of fact, the cognitive ground *per se* is always a rational insight. In the former case we are dealing with an affirmation that is assertoric and in the latter case with one that is apodictic. We cannot always form concrete ideas of the things in question; frequently we must be content to substitute surrogate ideas [*Surrogatvorstellungen*]. We must do this where the necessary existence of God is asserted; where we make use of negative and analogous determinations. Theophrastus had put this clearly in his metaphysical fragment. Therefore our knowledge of God is merely indirect, and not an object of direct rational insight. We have only an empirical proof of the fact that the intuition of God, if we could have it, would be connected with a direct rational insight into his necessary existence, and thus with an apodictic affirmative judgment.[437]

23. Some have spoken of a so-called *causa deficiens* and have contrasted it with the *causa efficiens*. But if one wants to use the expression *causa deficiens*, one could use it more generally so as also to contrast the *causa deficiens* with the cause of transformations and with the material cause. Then it would contrast with the *causa causans* as such, as being a cause that is not truly causing. When something that would cause something is absent, one says that its not-being is the cause of the fact that the other thing does not exist. Thus the absence of one member of a trio would be the material *causa deficiens* of there not being three, and the absence of a good marksman would be the *causa deficiens* of the fact that the target has not been hit. Such negative preconditions can be called causes only in a most extended sense.

IV. APPENDIX: THE NATURE OF THE PHYSICAL WORLD IN THE LIGHT OF THE THEORY OF CATEGORIES

(30 January 1915)[438]

1. In the corporeal world two sharply contrasting parts are distinguished. One of these, comprising the solid, fluid, and gaseous bodies, constitutes the aggregate mass of so-called matter; the other is the ether. Concerning the nature of the latter, there is a wide difference of opinion among scientists. Some would conceive it as consisting of tiny discrete particles moving continuously at extremely high velocities; others, as a homogeneous cohesive continuum which, unlike the corporeal masses, is not subject to the principle of impenetrability. The ether is supposed to be the medium in which light and electricity are propagated.

2. Exponents of these views, however, do not always realize clearly enough how completely the true nature [*das eigentliche Wesen*] of the corporeal world is hidden from us. On one occasion, in the presence of Lord Kelvin, someone said that it might be preferable not to speak of such a thing as the ether, since we know virtually nothing about it. To this, he replied that, however much in the dark we may be about the nature of the ether, we are even more so in the case of the nature of matter. Actually, psychology, in so far as it is descriptive, is far in advance of physics. The thinking thing – the thing that has ideas, the thing that judges, the thing that wills – which we innerly perceive is just what we perceive it to be. But so-called outer perception presents us with nothing that appears the way it really is. The sensible qualities do not correspond in their structure to external objects, and we are subject to the most serious illusions with respect to rest and motion and to figure and size.[439] According to some philosophers, the subject of our mental acts and sensations and that of the analogous animal activities is something corporeal; if this were true, we could have intuitive presentations of certain accidents of bodies. A careful analysis of mental phenomena, however, proves beyond any doubt that their substantial support [*Träger*] is not something spatially extended, but is something that is mental [*etwas Geistiges*]. This being the case, it may turn out that the domain governed by the laws of mechanics is in fact very different from what physicists have until now assumed.

3. What I am getting at will be clear in the light of the following considerations. In antiquity it was generally assumed that matter consists of bodily

substances, which now remain at rest, now move from one place to another. The atomists believed that these substances were separated from one another by empty interstices which make it possible for them to move. Others thought that the substances are everywhere in contact with each other but are yet capable of changing place – either because they are perfectly fluid or because they are susceptible to an expansion and contraction which is analogous to the acceleration and deceleration of a motion in time.

Lord Kelvin was recently struck by the idea of replacing the atoms with vortices within a complete fluid. These vortices were no doubt conceived as continuously moving substantial parts of the fluid, but the resulting over-all picture was very different. Whereas formerly the atom's substance remained the same in the course of its continuous motions. Lord Kelvin's vortical motion, as it spreads from one place to another, communicates itself to different parts of the fluid substance. And since the substantial subject is constantly replaced in the course of these transitions, the moving vortex itself does not remain individually the same.

4. Now it is obvious that our ignorance of the true nature of matter leaves room for still other hypotheses which, like that of Lord Kelvin, make possible a complete change in our present view. And so one might go so far as to conjecture that the aggregate mass of matter constitutes a single stationary corporeal substance which, like Lord Kelvin's homogeneous fluid, would be shot through with certain particular accidents corresponding to his vortices. In this case, the laws of mechanics as well as those of physics, chemistry, and physiology, would pertain to these accidents and to their changes and interaction.

5. This stationary unitary substance would take the place of the ether. And in place of what had been formerly regarded as the substances of corporeal matter, there would be accidents attaching to the single substance, and these would be transmitted from one part of it to another.[440] The laws of mechanics would pertain to the interchange and preservation of these accidents. We could also assume that the portions of the substance between these accidents are themselves free of accidents. The accidents could have the properties of impenetrability, so that different qualities in the same portion of the substance would be incompatible. Changes in quality could also be in accordance with certain laws; these laws might then have consequences which would account for the phenomena of so-called elasticity and provide the basis for the law of the conservation of energy. Recalling that accidents in the mental domain can become subjects of other accidents, we could assume that the same is true of the accidents which replace the corporeal substances. In this case, it would be even easier to see how the accidents might perform all the functions formerly ascribed to substance. So far as

the propagation of light and electricity is concerned, it is perfectly feasible to replace both the emission theory and the wave theory by a hypothesis which has a certain analogy with each and which would account for the same phenomena as well, if not better, than these theories do. The hypothesis would not be concerned with oscillations or displacements of parts of the substance underlying the rays and everything else that is materially qualitative. It would be concerned only with the displacement of qualities, which may be conceived of as divisible into tiny portions. In this way nothing would be essentially changed, except for the difference that the single substance would not itself be subject to the laws of mechanics.[441] If a system of qualities is at rest or in uniform motion along a straight line, the fact that the substance remains stationary in both cases will not cause any change in the relative sequence of the qualitative displacements. The substance itself is not to be counted among the qualitative components, but the laws of physics and, in particular, those of rational mechanics, hold only of such qualitative components.

I believe that such a recasting of our conception of the corporeal world along these lines provides us with the easiest way, if not the only way, of resolving certain paradoxes presently confronting physicists as a result of Michelson's and related experiments. This would pave the way for a deeper understanding of the corporeal world. The notion of the unitary substance that would take the place of ether would be far more comprehensible than what has been taught about the properties of ether and more specifically about its penetrability. So-called matter would likewise appear in an entirely new light. It would be highly interesting to see how far physical experiments might assist in bringing about such a fundamental reform in our views about the transcendent.[442]

6. Needless to say, one could assume that our soul [*Seele*] interacts with the qualities inhering in the unitary corporeal substance just as it was formerly assumed that it interacts with corporeal substances.

7. I must state emphatically, however, that the unitary corporeal substance need not at all be boundless in length, width, and depth like the empty space in which it had once been supposed that corporeal substances are located. If a quality traveling along a straight line in accordance with the laws of mechanics were to reach a boundary of the unitary corporeal substance, its rectilinear motion would not be stopped; instead, it would be reversed in the same way as a moving body is forced back by a barrier, where the barrier is supposed to be perfectly rigid, but where the elasticity of the quality itself that has reached the barrier produces an alteration and leads to a reversal of the motion.

8. That the boundaries of the unitary substance would function as such natu-

ral barriers must be regarded as a further consideration in favor of the hypothesis. The threatening heat-death of our universe has often been mentioned; but little or no concern has been voiced about the far more likely possibility that the world will end as a result of the dispersion of the smallest particles – a dispersion which is unavoidable on the assumption that the corporeal world is finite and space infinite. A similar dispersion of the qualities, which on our hypothesis would take the place of substances, is absolutely ruled out in as much as the unitary substance underlying them is bounded.[443]

9. Our hypothesis is also helpful in coping with other seemingly insurmountable difficulties. Consider, for example, the question of how determinism – which is an inescapable hypothesis – is to be reconciled with this fact: there would seem to be complete indifference so far as concerns the choice between the present arrangement of bodies in the world and that of a mirror-image of this arrangement taken from any angle. On our hypothesis boundless empty space has been replaced by a finite material substance; this substance is absolutely immovable and unchangeable in its position; but it has boundaries and the way in which it is bounded need not at all be as uniform and hence as equal in effect as those of a sphere. Therefore one cannot say that it makes no difference whether the qualitative motions which this substance underlies proceed in one direction or another.[444]

10. Surely, a hypothesis which not only solves one problem but also provides the means of solving other problems which have hitherto found no solution deserves serious consideration.

EDITORIAL NOTES

by

ALFRED KASTIL

1. Only such direct *a priori* insights are axioms in the strict sense. The term "axiom" has also been applied in a looser sense to propositions which are neither evident nor provable, but which are postulated in the construction of theories. One should be clear that such so-called "axioms" are propositions which have no justification. Unfortunately the influence of Kant has led to the view that such propositions are justified to the extent that they serve as the conditions under which a given science is possible. But this is a peculiar illusion indeed; since, in order to decide whether *ostensible* science is actually a science, one must *first* know whether such postulates are justified.
2. This is why Brentano rejects all *a priori* proofs of God's existence. Compare his critique of the ontological argument in *Vom Dasein Gottes* (Hamburg: Felix-Meiner Verlag, 1968), pp. 39-47.
3. Here the term "atom" is used in its original sense, as a particle that completely fills its space.
4. The same of course is also true of that which is intuited, e.g., the so-called field of vision. If the places we see actually existed, then they would not be distinguishable, as Hillebrand thinks, from the parts of real space corresponding to them; they would *be* those parts. See Franz Hillebrand, *Lehre von den Gesichtsempfindungen* (Vienna: J. Springer, 1929), pp. 113, 115 and 195.
5. That the word "nothing" is meaningless in itself, i.e., that it is not a name and that it corresponds to no concept, had been overlooked by the post-Kantian idealists. Martin Heidegger also overlooks this fact when he makes "nothing" the proper object of metaphysics; see *Was ist Metaphysik?* (Bonn: 1929). Compare Oskar Kraus, "Über Alles und Nichts," *Philosophische Hefte,* Band II, 1930; reprinted in Oskar Kraus, *Wege und Abwege der Philosophie* (Prague: I.G. Calve'sche Universitäts-Buchhandlung, 1934), pp. 114-125.
6. According to Brentano's later analysis, "to assert something as past" is to think *modo obliquo* of its being in time and simultaneously to assert *modo recto* something subsequent to it. Only that which is asserted or accepted as present is asserted in the proper sense. Indeed, to assert or accept it is the same thing as holding it to be in the present. Compare *Vom sinnlichen und noetischen Bewusstsein* [Psychologie III] (Hamburg: Felix Meiner, 1968), pp. 37-52; and O. Kraus, *Zur Phänomenologie des Zeitbewusstzeins* (in *Archiv für die gesamte Psychologie,* vol. 75 (1930) pp. 1-22.)
7. One who says that there *is* such a thing as an infinite space and intends thereby to express an assertoric judgment is judging absurdly. But it is not absurd to deny that there is a space greater than any finite space. Compare Brentano, "Zur Lehre von Raum und Zeit", *Kant-Studien*, vol. XXV (1920), pp. 1-23, and *Philosophische Untersuchungen zu Raum, Zeit, und Kontinuum* (Hamburg: Felix Meiner, 1976).
8. But a part of an individual thing is not an individual thing *qua* part. If we say of a thing *a* that it has *b* and *c* as its parts, then we are predicating a real determination of

a. But if we say of *a* that is a part of a whole then we are not predicating a real determination of *a*, for the other parts of that whole can be removed (and thereby also the whole in so far as it is composed of them) without any change being caused in *a*. Thus it would seem that while the term *whole* (i.e., that which has parts) is a genuine name, the same is not true of the term *part*. Similarly "someone thinking" is a genuine name, but "something thought of" is not. But there is this difference between "part of a whole" and "something thought of": a thing can be thought of without existing but a thing cannot be a part without existing.

9. Whatever *is* is an *ens reale* or a thing. But we can think of things that do not exist. For example, a person seeing something colored contemplates something that does not exist. Although Brentano repeatedly emphasizes this distinction, it is all too often ignored, and as a result his thesis that we can think only of *entia realia* is misconstrued as subjectivistic. We find such a misinterpretation in Julius Kraft, *Von Husserl zu Heidegger* (Frankfurt: Verlag Öffentliches Legen, 1932 [second edition, 1952]); but this book is to be commended for resisting the unsound way of doing philosophy that has surprisingly come into favor.
10. An example of such a multiple accident would be a soul that sees and hears simultaneously. An accident of the first order would be something having a presentation, for the only substance that this includes is the self *[das ich];* an accident of the second order would be something that is judging, for this includes something having a presentation; and an accident of the third order would be something that has knowledge, for this includes something that is judging.
11. The thing that contains *[das Einschliessende]* is the accident; the thing that is contained *[das Eingeschlossene]* is the substance. But the subject is not *contained* in the accident in the sense in which the concept of the genus may be said to the be *included* in that of the species. [The verb "to contain" is here used to express the relation which, according to Brentano, the accident bears to the substance. Brentano uses *"einschliessen"* for containment as well as for inclusion. R.M.C.] The relation of containment is a material relation; but the relation of inclusion, which the concept of the species bears to that of the genus is supposed to be a metaphysical relation. Compare what is said in Section C of the present essay.
12. According to Brentano, however, it is not quite correct to say that the *concept* of being coincides with the concept of that which is now or present. It is true that the two statements, "Something is" and "Something is now or present", have the same sense. But the word "is" does not signify any concept, not even the most general of our concepts. The most general concept is the concept of *something* – the concept of a *thing*. This concept is co-extensive with the concept of what which is temporally extended. The existence of things in time cannot be inferred from the concept of thing; that is to say, it cannot be known *a priori*. But we can infer from the general concept of a being – that is to say, the concept of *something*, of a *thing*, of an *ens reales* – that there cannot *be* anything unless it is something that is *present* and thus stands off from earlier or later. What *is* stands off from what was or what will be.
13. On the use of such fictions in logical reasoning, see *Psychology from an Empirical Standpoint*, pp. 291 ff.
14. Because of the use of such fictions, the primary objects of sense perception are treated as though they are things that exist. If one is not conscious of the fiction here, one falls into pseudo-problems and errors. Naive realists take the existence of these sense objects for granted. Others, to avoid conflict with physics, seek a way out by saying that the objects of sense perception are properties of the perceiver – as though

he were something that is colored, extended, round, angular, and so on. (At the same time not all of them are consistent enough to profess materialism.) Still others say that colors as well as the persons seeing them are immediately given, without noticing that they are not given in the same sense. (Only the person seeing can be said to be given to himself in the sense of being an object of immediate apprehension. But the thing that he sees – say, the color blue – can be said to be given only in the sense that he may be said blindly to believe that there is such a thing.) And there are some, like the positivists, who even deny the distinction between the color and the one who sees it.

15. On the problem of universals, compare *Psychology from an Empirical Standpoint,* pp. 311ff; *The True and the Evident,* pp. 64 and 102ff; and *Vom sinnlichen und noetischen Bewusstsein,* pp. 89ff and 111ff. Because Berkeley failed to see that the existence of ideas – of objects of thought as such – is fictive, he felt that in denying the existence of determinate things, he should also deny the existence of indeterminate ideas.
16. Compare *Psychology from an Empirical Standpoint,* pp. 321ff., and *The True and the Evident,* pp. 83ff, 95 and 97ff.
17. This essay is taken from the Third Draft of the Theory of Categories where it appears directly following paragraph 23. Compare *Psychology from an Empirical Standpoint,* Appendix IV ("On Genuine and Fictitious Objects"), pp. 291ff, and *The True and the Evident,* pp. 63ff and 77ff.
18. On the true function of abstract names, see the following essay, section D ("Fictive Parts of Things") and part three, essay II, section D ("On the So-called Abstracta").
19. So Bolzano, in his theory of "propositions in themselves" and "ideas in themselves". The absurdity in this theory is not removed by assigning these contents to so-called "transcendental consciousness" or a "consciousness in general". A consciousness that belongs to no one is a contradiction in terms. The mystical Mr. In-General is Mr. No-One. Compare the editor's introduction to *The True and the Evident.*
20. *"Entia elocutionis"* would be a better expression for what Brentano has in mind.
21. In the statement, "Every thing must be a fully determinate thing," the expression "determinate" is not a real predicate of the subject *thing.* The expressions "determinate" and "indeterminate" are synsemantic. But "someone thinking determinately of something" and "someone thinking indeterminately of something" are genuine names. If one says, "There cannot be an indeterminate thing", what he is doing is this: he thinks of someone thinking indeterminately of something; then he judges that what the person is thinking cannot be predicated of two things unless the things are different from each other in some way. Hence, what is in question here, is the *principium indentitatis indiscernebilium.* Since the term "object" is equivocal, something that is actually not an object of a person's thought can be said to be thought of indeterminately by that person if it falls under concepts that he is thinking. (See footnote 39 below.) To avoid misunderstandings, we should say that the person's conceptual thinking is "universal" rather than that it is "indeterminate".
22. This sense of *"per accidens"* must be distinguished from the metaphysical sense of *"ens accidens."* As in the above example, a substantial attribute such as *extended thing* may belong *per accidens* to something merely thought.
23. Aristotle seems to regard the degree of a quality as something that holds of the quality *per accidens.* According to him quantity, like quality, is a distinct accidental category.
24. If our sensible intuition contains no absolute spatial determinations, but only relative ones *in specie,* then outer perception, too, lacks complete determination. Compare *Psychology from an Empirical Standpoint,* pp. 364.

25. On Brentano's views about the "is" of the copula, see section F of the First Draft of the Theory of Categories, in part Three of this book. What Brentano tells us here is that the expressions "to believe in something," "to accept or affirm something", and "to assert the existence of a thing" all mean the same. There is only *one* species of assertoric judgment and whoever makes such a judgment makes it about a thing. But it would be a serious error to suppose that according to Brentano, the word *existence* is synonymous with *being* in the sense of *something (things, ens reale).* The word *something* is a genuine name and signifies the most general of all our concepts. But the word *existence* is not a name and does not signify anything by itself. It is synsemantic, that is to say, it must be supplemented by other words before it can call up any sense. For example, the statement "Someone asserts the existence of something" tells us only someone affirms or accepts something. It has been said that, according to Brentano, "The abstract term existence signifies nothing more or less than that there is someone affirming or accepting a thing", Alfons Werner, *Die psychologisch-erkenntnistheoretischen Grundlagen der Metaphysik Franz Brentanos* (Hildesheim: Franz Borgmeyer, 1930), p. 114. This is a misconception. According to Brentano, the word "existence" (like the words "existent," "being," "possibility") means *nothing at all* by itself; it is synsemantic. On the other hand, the statement "*A* is existent" does have a meaning, but not the same meaning as "Someone who accepts or affirms *A* exists." Compare George Katkov, "Bewusstsein, Gegenstand, Sachverhalt: Eine Brentanostudie," *Archiv für die gesamte Psychologie,* Band 75 (1930), pp. 459-544; esp. pp. 517-544.
26. From a dictated text headed *Ontologische Fragen.*
27. Brentano was later to give up the thesis of the reciprocal interpenetration of place and quality; see the following footnote.
28. This paragraph is difficult to understand for several reasons. First of all Brentano illustrates the Aristotelian doctrine of substantial differences with examples of differences of place and quality which Aristotle himself regarded as accidental. Moreover, Brentano himself was later to hold that these differences cannot be thought of as entirely substantial. In 1908, when this selection was written, he had viewed place and quality as substantial but he thought that neither could yield individuation without the other. He subsequently corrected this view. He still held that an ultimate qualitative difference, such as red or warm, is a universal (on the grounds that any number of things could be so qualified), but he no longer regarded it as substantial; on this point he went back to Aristotle. On the other hand, he continued to hold in opposition to Aristotle, that determinations of place are substantial, and diverged from the view expressed here in that he allowed for the possibility of places devoid of quality. Hence the supposed substantial genus, *thing which is qualitative and spatial* [*Örtlich-Qualitatives*], disappears, and it can no longer be said that "the individual is thus subsumed under one genus in respect of the two proximate specific differences."
29. The terms are from the Greek, στοιχή, meaning "row in an ascending series." *Colored thing* and *red thing* are homostoichetic; *direction* and *speed* are heterostoichetic.
30. The preceding paragraphs were concerned only with substantial differences. Because Brentano then held that place and quality (both of which belong to the physical sphere) are substantial, he was obliged to draw on the mental sphere for his examples of accidental differences.
31. Since a soul that ceases to think remains the same I, the expression "unequivocally determined" would be clearer here than "individually."
32. This example betrays a tendency to eliminate the class of presentations [*Vorstellun-*

gen] and to differentiate all thinking as affirmative or negative. Later Brentano broke away from this tendency.

33. This is what Brentano himself had held with reference to the physical domain (see paragraph 5); but he was to change his mind later (see paragraphs 7 and 11 of the Third Draft of the Theory of Categories in part Three of this book).
34. This red thing *is* this colored thing, but does not contain it as a part. One cannot say of a part that it *is* the whole. The finger cannot be said to be the hand.
35. The difficulties involved here are cleared away by Brentano's radical solution according to which only concreta, whether individual or general, signify concepts; in other words, only concrete terms are genuine names. The *colored thing* which is this red thing *is* a thing; but the *color* supposedly present *in* the red thing or *in* the blue thing is a fiction.
36. We do not have complete identity here, since we have two different presentations (even though both to the same I). But we have real identity in the case of *this person seeing something red* and *this person seeing,* and also in the case of *this person acknowledging* and *this person judging.*
37. "Modal" stands here for "accidental" as distinguished from "substantial." The term was used in this sense by Descartes.
38. "Determinate" and "indeterminate" obviously pertain to an internal distinction of ideas and one that is positive.
39. The differences in question do not belong to the intentional series. Brentano might better have said here that the thing appears as that which it is thought of as and the same thing is now object *as* stone, now object *as* this particular flintstone. Here a certain ambiguity is to be noted. Suppose I say of someone, who thinks the general concept of thing, that the object of his thought may be a stone or a man or a tree but that it is thought of, not as stone or man or tree but as a thing. In such a case, "object" [*Gegenstand*] is synsemantic. We have one synsemantic function when I say that, to the extent that the man is thinking of the concept thing, he has a thing as object. We have another synsemantic function when I then go on to say that at the same time his object may be a stone or a tree or a man. The first use is the proper one; the second is an extended use. In the second sense, I am not strictly saying that he has a stone for his object; I am saying that, since a stone is a thing, the actual object of his thinking can be predicated of a stone. What we have here is not a special way of thinking about a thing, but a complicated *denominatio extrinseca.* (It would be best to dispense altogether with this traditional locution "to think of a thing *as* this or that" [*etwas als etwas Vorstellen*], for it is psychologically misleading. Compare Editor's Introduction to *Vom sinnlichen und noetischen Bewusstsein,* p. xlvi).
40. Since, strictly speaking, there *is* nothing that is blue or red, some find it strange to say the seeing of blue and the seeing of red are distinguished by reference to their objects. But it seems to me that this is like denying our ability to have an idea of the color red on the ground that there is no red thing.
41. In other words, the difference between accident and substance is not only conceptual but also material. The substance *is* not the accident, but the accident is not something wholly other than the substance. The substance with the accident is in a sense *more* than the bare substance, but according to Brentano it would be completely inappropriate to speak here of a higher degree or a higher order of reality.
42. Brentano's views about the relation between mind and body may be found in *Vom Dasein Gottes,* pp. 417-435.
43. Brentano sometimes uses the word "entity" [*Wesen*] in a broad sense as synonymous

with "thing"; sometimes he uses it more narrowly as synonymous with "substance".

44. From a dictation entitled *Ontologische Fragen*.
45. A determinate [*bestimmt*] idea is one to which only one thing can correspond. A thing thought of determinately is thought of completely, in accordance with all its attributes. But this determinate thinking is not *distinct* unless those attributes are clearly distinguished from each other. The most complete presentation of which we are capable is intuition. It has been said that intuitions without concepts are blind, i.e., confused; but this ignores the fact that there is such a thing as sensible discrimination prior to all abstraction. According to Brentano's definitive view, which he did not formulate until 1916, even our sensible intuitions are not completely determinate. For more than one thing can correspond to such intuitions – that is to say, the object of such intuitions can be predicated of more than one thing. Hillebrand denies this indeterminateness, but he does so because he completely misunderstood Brentano's motivation. According to Hillebrand, Brentano infers this lack of individual determinateness from the well-known fact that one and the same intuition may be the effect of different causes. But actually Brentano infers it from a quite different fact: it is the fact, namely, that different things may correspond to one and the same intuition – i.e., that the object of the intuition may be predicated of more than one thing. Compare Franz Hillebrand, *Lehre von den Gesichtsempfindungen* (Vienna: J. Springer, 1929), p. 195; see also Brentano's *Psychology from an Empirical Standpoint,* pp. 311-314.
46. A "real part" is something which can exist in isolation as an individual. Thus the parts of a collective or a continuum are real parts; so, too, for a substance which is the so-called metaphysical part of an accident. But a "logical part," on the other hand, is something that can be separated only conceptually; thus the genus is said to be a logical part of the species. We are here concerned, of course, with homonyms of the synsemantic explosion "part"; compare note 8.
47. Brentano and others occasionally use the term "identity" in a wider sense, namely, to relate all objects that may be correctly predicated of one another. But in the present passage it is used in a narrower sense: Brentano obviously distinguishes between identifying [*identifiziernd*] and nonidentifying predications.
48. "This soul thinks" expresses an attribution with a substantial subject; "This thinking thing judges" an attribution with an accidental subject.
49. These so-called disjunctive concepts are neither real predicates nor genuine concepts; they are synsemantic.
50. Consider, for example, the case where I know that a person thinks of his absent brother, but I do not know whether this person has been informed about his brother's illness. I may say that he thinks of someone who is ill, but in such a case I am not predicating anything of the thinker himself. This is apparent from the fact that my statement can become false (if the brother recovers) without there being any change in the way the person is thinking. So my statement "He is thinking of someone who is ill" is not a real predication but only a *denominatio extrinseca*. See note 39.
51. Here I intend to identify the thing thought of *in obliquo* with a thing that I think of *in recto*. This is an instance of the Aristotelian *ens per accidens*. See *Psychology from an Empirical Standpoint,* pp. 281-6.
52. We have an *addition* here of *colored thing* and *one who is thinking a colored thing*. And we have an *identification* of *colored thing* and *red thing*.
53. Brentano later came to think of such correspondence as fictive. See the critique of the correspondence theory – the theory of the *adequatio res et intellectus* – in *The True*

and the Evident. And so actually there is only *one* relative predicate here, namely, "thinking of a colored thing."

54. In other words, the expression "correspondence" is often in various metaphorical senses.
55. That is to say, the person who is thinking may be said to alter himself to the extent that he thinks something different. See note 41.
56. One of the thinkers, for example, may be making a judgment with respect to the object and the other thinker may be thinking about the object but not making a judgment about it.
57. On this type of symbolic thinking, compare Marty, *Untersuchungen zur Grundlegung der allgemeinen Grammatik und Sprachphilosophie* (Halle: Max Niemayer, 1908), pp. 462 ff.
58. From the same text (*Ontologische Fragen*) as the preceding section.
59. Compare *Psychology from an Empirical Standpoint,* pp. 351-4.
60. I have added the words in parentheses ("without changing its place"). It is impossible to join two bodies without displacing at least one of them and thereby changing its individuality. When the body at rest is brought into contiguity with the other, it would undergo a change in at least this sense: its former surface had been in incomplete plerosis and is now in complete plerosis (that is, what had been an outer boundary is now an inner boundary). But one cannot say that, merely by reducing the size of a continuum, one thereby creates something that had not been there already.
61. We are concerned here, not with a name, but with an expression that is synsemantic. *Negativa* are not things. To say that something has no parts that are themselves things is not to add any real determination to the thing.
62. Brentano's observation about the division of points depends upon his doctrine of plerosis.
63. If they become *one* body as a result of being pushed together, then one or the other or both change their individuality. For their absolute differences with respect to place are what individuates them, and the place between is now filled.
64. Compare Brentano, *On the Several Senses of Being in Aristotle* (Berkeley: University of California Press, 1976), edited and translated by Rolf George.
65. Brentano's thought is that the two ideas *S* and *P* would then be the subjects, and the accident which is an accident of each would be the identifying idea, an *S* which is *P,* or the judgment that *S* is *P.* This example of a secondary accident is not mentioned elsewhere by Brentano.
66. This passage is intended to meet the objection (not explicitly formulated), according to which what is true of secondary accidents must also be true of primary ones and hence that one and the same primary accident may be an accident of two substances. Perhaps it would be better to conclude that the situation envisioned is not one involving secondary accidents.
67. But to treat *being acted upon* as an accident of the effect produced would of course be inadmissible, and would lead to infinite regress. For everything that can have a cause is necessarily an effect; it cannot exist unless it is brought about. Compare the discussion of action and passion below in the third draft of the theory of categories.
68. But it should be added that an ultimate accident, one that is not divisible into parts, cannot in this way have several different individuals as its subject.
69. This discussion concerns only relations of comparison. Relations are discussed in greater detail below.
70. What Brentano wants to say here may be clarified by an example. The statement *"A*

is an impossibility" can be taken in three ways: (1) on one interpretation it is meaningless; (2) on another, it is meaningful but false; and (3) on still another it is true.

(1) The statement *"A* is an impossibility" is meaningless if one takes it in such a way that "is" has its ordinary function (that of supplementing a name in such a way as to express an affirmative judgment), and if one realizes that "impossibility" is not such a name. For "impossibility" does not name a thing and it brings to mind no concept. But (2) if one fails to realize that "impossibility" is not a name and believes that there *is* such a thing as an impossibility, then the statement *"A* is impossible" is meaningful but false. And finally, (3) the statement is true if it is taken in such a way that the "is" expresses, not an affirmation, but an apodictic denial. In this case, one who realizes that what the statement tells us is that some *thing* (e.g., a round square) is impossible – that there cannot be such a thing.

This doctrine of the synsemantic function of the *is* must not be confused with Carnap's theory according to which there is no general concept of being or thing and therefore that statements of the form *"a* exists" are meaningless. See his "Überwindurng der Metaphysik," Erkenntnis, vol. II (1932), pp. 219-241. Until the theory of several senses of being [*die Lehre von der Homonymie des Seienden*] is correctly understood, a scientific critique of all metaphysics, such as the one intended by the Vienna circle, has no legitimate foundation.

71. A word is a name in the logical sense provided it expresses a concept and signifies a thing.
72. On the origin of abstract terms, see paragraph 4 in the Third Draft of the Theory of Categories.
73. Brentano is here speaking of definition in the Aristotelian sense. Such definitions involve a unitary series which ascends from the lowest species to the highest genus, and all the members of which are predicable of a thing if the lowest member is predicable of the thing. An example is the series: red thing, colored thing, qualitative thing, accident, thing.
74. Feline nature, according to this view, would be a unitary substance existing in and for itself, and each individual cat would be an accident of this substance.
75. The following seems to be what is here intended. Consider animal nature and feline nature. According to the view in question, each nature is a part – but the cat nature is a part of the individual tomcat, Hidigeigei, whereas the animal nature is a part of the feline nature of Hidigeigei. Thus each nature in the hierarchy would be a different thing. This of course holds of parts in the strict sense of the term: every part of a thing is itself a thing, and no part of a thing can be identified with any other part of the thing. Suppose we have two halves of a body. It would be absurd to say that the right half is individuated by the left half or by a part of the left half; for nothing can be individuated by any thing outside of itself. Yet this self evident proposition would not hold of our fictive parts. Since the animal nature would be contained in the feline nature, and since the feline nature would be contained in the tomcat, Hidigeigei, each of the natures would be individuated, not by something which it contains, but rather by something in which it is contained – by something of which it is itself a part. The Platonic universals, to which Brentano alludes at the beginning of this paragraph, are absurd because they are not individuated; but the predicated universals, though individuated, are absurd because they would have to be individuated by something that lies outside them.
76. The relation between substance and accident, according to the theory in question, is

quite different from what Brentano conceives it to be. Brentano views that thing which is the substance extended by the accident [*die akzidentell erweiterte Substanz*] as an ultimate unitary thing [*als ein letzteinheitliches Ding*]. But the theory under discussion views it as a collective composed of *two* things each separable from the other. For example, a person rejecting or denying something would be a collective consisting of two things, "the I" (the substance) and the thing which is "this rejection" (the accident). The individual accident would admit of several abstract names. One would be "this rejection"; another would be "this judging"; another would be "this thinking." Each would designate the same accident by means of concepts of various degrees of generality. So this conception of universals differs from the one previously discussed. For according to the former view, the feline nature and the animal nature are two different things, even if both come together in the same cat.

77. This denier is the same as this judger, and this judger is the same as this thinker.
78. Suppose copper could be transmuted into gold, and conversely. According to this theory, there would be in the copper a thing which is "the possibility of becoming gold," and after the transmutation, there would be in the gold a thing which is "the possibility of being changed back to copper." Compare Brentano's *Aristotle and His World-View* (Berkeley: The University of California Press, 1976), p. 45.
79. For example, gold would be gold in virtue of a substantial part inherent in it. This would be called the form of the nature of gold. And analogously for copper.
80. Brentano's reference to the "actual accident" should be understood by reference to the theory described in note 76 above. According to the theory, *this red thing* would be a collective composed of two things – *this place* and *this red*. The latter thing, the abstract accident, would in turn be composed of two parts: (1) the accidental form red which would disappear if this red thing became blue, and (2) the accidental matter which would persist through the change.
81. Compare Brentano's *Vom Dasein Gottes,* p. 423.
82. A critical examination of attempts to construct the concept of the continuous, for example, those of Dedekind and Poincare is included in Brentano's book on space, time, and the continuum. [*Philosophische Untersuchungen zu Raum, Zeit, und Kontinuum* (Hamburg: Felix Meiner, 1976)]. So far as the *intuition* of the continuous is concerned, it is important to distinguish between *primary* and *secondary* continua. Thus, a red body, to the extent that it contains infinitesimally varying absolute place-species, is a primary continuum in respect of its substance. But the red as such, in so far as it fills these places, is a secondary continuum (for it is a simple species and not an infinite plurality of color species). It is beyond question that we intuit this red thing as extended – that we intuit the accident thing as a secondary continuum. But we cannot intuit what is substantial in complete determination since we cannot intuit the absolute place-species. Our spatial intuition has the spatially substantial as its object only *in genere;* it does not have its object as a continuum of absolute places. This is why the distinction between the primary and the secondary continuum most often escapes us. The confusion between the two is at the root of the absurd hypothesis of a curved space. In fact only a secondary continuum and the outer boundaries of a primary continuum can be curved. A curved space is just as absurd as a curved time span.
83. See section C of the present essay.
84. For such a demonstration, see the editor's notes to Brentano's *Versuch über die Erkenntnis,* pp. 207-210 [second edition pp. 297-300]. Some have attempted to salvage the actual infinite by saying that, although there are not infinitely many individual

things and although no individual thing is infinitely large, there is an infinite series of *numbers*. But numbers cannot be said to *be* in the proper sense. What *is* in the proper sense are only individual things that can be counted or divided.

85. In such cases, the multiplier must be an unnamed number.
86. That is to say, the part of a collective cannot be said to be an *efficient cause* of the collective. The concept of cause is discussed in detail in part Two of this book (essay III, sections D, E and F).
87. But a moment without any temporal link to an earlier thing or a later thing would be absurd. It would be a point in time without plerosis, and thus something universal. But there cannot be anything universal.
88. Here as elsewhere Brentano illustrates teleiosis by the fiction of a color continuum. He actually holds that such a continuum is impossible for according to him intermediate colors are not simple qualities (see the following essay). Because the boundary has no independent existence, it is necessary to explain how it can be a "condition" of the continuum. The question is discussed further in the Third Draft of the Theory of Categories, in part Three of this book.
89. The difference between the location of a thing that is in motion and the location of a thing that is at rest is discussed in detail in the essay that immediately follows.
90. Thinking is not always an accident. If it were, we could not, without contradicting ourselves, ascribe thinking to God who is not a subject of any accident.
91. The explication of the Aristotelian doctrine which Brentano offers here is a result of his investigations of teleiosis. His lecture notes dating from the Würzburg period (ca. 1870) contain another interpretation of the Aristotelian concept of incomplete actuality. Brentano writes there:

> An unfinished (incomplete, imperfect) actuality must be carefully distinguished from a finished (completed) actuality. By the former I understand determination of being which signifies a continuous, e.g., locomotion, expansion and the like. These are incompleted actualities because, even though they do exist, they are yet such that in respect to certain of their parts they do not exist.
>
> Let a ball move with uniform velocity from *a* to *d* in three hours. During the second hour of its motion, the motion over the parts $a - b$ and $c - d$ does not apply to it. Only the motion from *b* to *c* applies to it, but this too does not apply in a completed way. During the second quarter of the second hour, for example, it cannot be said to be moving from *a* to *b* nor from *c* to *d;* nor it can be said to be moving from *b* to *f* or from *g* to *c,* and even its motion from *f* to *g* is incomplete. In this way I can single out even smaller parts *ad infinitum* over which the motion is not actual. [The letters *"f"* and *"g"* designate points between *b* and *c*.]
>
> For all that, the motion is a single whole; indeed it its a continuous change, and it must be not confused with a plurality of successive motions, even though it can be broken up into such a plurality. (Interruptions. Substantial changes in the subject.) Consequently, the statement that the body is characterized (only) by this or that part of the motion is false: it is characterized by the motion as a whole, but incompletely, i.e., only with respect to some parts of the motion. Even more obviously false is the statement that the moving body is characterized only by this or that moment of motion. In the former case the continuous is confused with the discrete; in the latter a limit or boundary of the thing is confused with a part or even with the whole of the thing. And yet the second of these confusions is especially frequent. Misjudging the nature of an incomplete actuality, one supposes that one can, without error and indeed with greater exactness, speak of a complete actuality, which presents only within a moment (an instantaneous "here"). But I must insist that it is the whole motion that applies to the moving body; but *qua* motion, *qua* continuous change, it belongs to it only in a partial, incompleted way, that is to say only in respect of some of its parts. In other words, were the one motion broken up into a plurality of (partial) motions, some of these would not be actual because they would have ceased or

would not yet have begun. Otherwise if I were to say that only one moment of the motion is actual, my statement would be doubly absurd. First, because it would imply that a moment can exist for itself. (A limit, e.g., a point, cannot be separated from that which it limits. No point can succeed another point. One can distinguish several lines that intersect in a single point.) And secondly the statement would imply that the moving body is not moving, for no motion can take place within a moment.

It should be noted that the statement "The motion exists only in respect to a single moment" is false, for it implies that there is nothing within which there is motion. It is true that the limitor boundary is not here confused with the whole, but it is confused with a part. Aristotle's definition of an incompleted actuality as "the actuality of that which exists potentially" is not inappropriate. For what is incompletely actual in respect of one part exists only with respect to one part and therefore in possibility it is still such that it has the same actuality in respect of another part.

Needless to say, Brentano's theory of the continuum underwent several changes in the course of his investigations. [A more detailed treatment of this subject may be found in Brentano's *Philosophische Untersuchungen zu Raum, Zeit und Kontinuum* (Hamburg: Felix Meiner, 1976.)]

92. This is the absurd hypothesis of an infinitely small body which is extended.
93. Consequently, the paradoxes of Zeno persist – what holds good for a body will hold good for a point.
94. That is, we consider the place occupied by a body at a given moment, insofar as this place is linked with the places occupied at earlier and later moments. Its link with adjoining places at the same moment will be discussed in paragraph 5.
95. In motion no place is skipped between the beginning and the end of the path and no time is skipped between the beginning and the ending of the motion. But this does not happen in the case of variations in color. What is red can change to blue without having first changed to violet.
96. That is to say, none that can be *specified*. Of course, every past or future portion of the motion's path which is connected with the present limit or boundary had or will have a definite magnitude, but so far as concerns the character of this limit – *what* it is – this magnitude is indifferent. Compare the discussions of continuity elsewhere in this volume.
97. In this passage Brentano uses the term essential in the sense of substantial. He calls the differences referred to here substantial because at the time he held that both place filled by a quality and the quality filling it (i.e., localized quality) are substantial rather than accidental. He assumed that under the general concept of substance there falls the unitary concept of that which is spatial and qualitative [*Örtlich – Qualitatives*] and that this latter concept is in turn differentiated by several series one of which yields the differences of quality and another the differences of place. But the latter is again divided into several series the last specific differentiae of which overlap. One of these series yields the differences of velocity none of which is conceivably maximal (rest being treated as a limiting case); and a third yields indefinitely many possibilities of directions in relation to what is earlier, to what is later, and to what is contemporaneous.

Two interesting questions arise here. The first is: Are all these continuous variations in the series of place given in intuition, or are we here concerned with construction of something which is transcendent to us? At the time he wrote the present selection, Brentano thought that these variations are given in intuition, for he held that our sensible intuition apprehends continua of absolute places. Later he corrected this view, and held that our sensible intuition apprehends only relative differences

between qualities situated in varying directions and at varying distances from one another.

What a particular spatial species is by itself, i.e., what distinguishes the concept of such a species from the general concept of place, is transcendent to us, and by the same token the other serial differentiations of place are also transcendent. We have no genuine concepts of them and must make use of surrogates for them, such as are provided by the above-mentioned relative differences.

The second question is: if these spatial differences are transcendent are they substantial? Brentano certainly holds here that such differences, now termed transcendent, are substantial, but on this point, too, he must have changed his mind after deciding that all qualities are accidental rather than substantial. Only the primary spatial continuum, which could exist as so-called empty space without any quality, is substantial. The qualitative element that fills a given place, i.e., the secondary spatial continuum, is accidental. The way place inheres in quality differs according to whether we are dealing with rest or with motion; in other words, the difference between the two cases is categorial, for, according to Brentano's theory expounded in detail in the present volume, the categories differ from one another in the way in which the accident includes [*einschliesst*] the substance, or, what says the same thing, the way in which the substance supports [*subsistiert*] the accident. Now substantial predications, i.e., those in which both subject and predicate are substances, do not involve any distinction of categories. (See part Three: Second Draft of the Theory of Categories, section 14.) Therefore if the difference between rest and motion is categorial, it must be accidental. Yet it is obvious that every accidental change with respect to location, i.e., every change of place, includes as such a change that is substantial and also spatial and temporal. Hence the transcendent differences with respect to rest on the one hand, and with respect to a moving body's velocity and directional pattern on the other, must refer, not only to differences among accidents, but also differences among substances.

98. This specification, however, is not complete; it leaves out the difference of plerosis. See paragraph 5.
99. We should say, not that rest contains more being than motion, but that the thought of something that is at rest here has more content than the thought of something that is moving here. The latter does not contain all the attributes required for complete individualization. What is actually in question, then, is not the degree of a thing's existence, but the degree of definiteness of our idea of the thing. In saying "the body at rest completely makes up for this lack of multiplicity," Brentano means that such a body, though it is characterized neither by its speed nor its direction, is nevertheless a complete thing.
100. Plerosis can be more or less complete in this case because even a point has parts and can lose indefinitely many of them without thereby becoming less real. This loss of parts results, not in a decrease of existence, which would be absurd, but in a decrease in the thing which exists.
101. To say that a thing exists not in itself but only as a limit is not to say that the thing has a lower degree of existence; it is to say something about the way in which it exists.
102. That is to say, every point is specifically the same as every other in respect of quality and specifically different from every other in respect of place.
103. This elliptical sentence expresses two ideas: (1) If differences of plerosis signified different degrees of existence, then qualities as well as places would have different degrees of existence; for qualities, insofar as they fill places (and are thus secondarily

continuous), may differ in respect of plerosis. And (2) as we have noted, these differences of plerosis pertain to the fact that a point may lose some of its parts; they do not pertain to degrees of existence.

104. The differences discussed here are not those of plerosis but of teleiosis, as Brentano calls them. Any continuous variation is characterized by a definite rate of change, but the latter can be constant or variable. The absolute places of a body at rest differ from one another, and the more so the greater the intervals between them. But it would be absurd to suppose that the first half of a line at rest contains more spatial points than the second half. In other words, in every part of a body at rest, the rate of change is of the same degree in all parts.

105. Here Brentano resumes his critique of the Aristotelian doctrine of degrees of reality. He shows that differences of teleiosis cannot be viewed as different degrees of reality. Among these differences he lists not only the varying velocities of a given motion, but also the changing directions of lines and surfaces. We cannot say that a more curved line has the same direction as a less curved line or one that is straight, and that the difference here is only one of *degree;* actually the directions differ in *kind.* Concerning Brentano's views about the impossibility of constructing a geometry without the concept of direction, see *Vom Dasein Gottes* (Hamburg: Felix Meiner, 1968), p. 499.

106. Brentano's own theory of intensity differs radically from the traditional doctrine. It may be summed up as follows in accordance with the sketch in *Psychologie III,* i.e., *Vom sinnlichen und noetischen Bewusstsein* (Hamburg: Felix Meiner, 1968), p. 66, section 14.

Intensive magnitudes are usually regarded as essentially different from extensive magnitudes: the latter are supposed to contain parts, the former not. But this alone implies that so-called intensity cannot be a magnitude in the strict sense. If we say of an intensity that it is a magnitude, we are using the word in an extended sense. (We also do this when we say that the space between two things is a magnitude. In this case, what has magnitude in the strict sense, and has parts, is any object that would fill this space.) According to Brentano, so-called intensive magnitudes are analogous to what he calls the mixed colors. Thus if the two colors, red and blue, are alternated with each other in the unnoticable parts of sensible space, then the whole is perceived as violet, hence as reddish blue, and within this whole both red and blue appear with less strength than would pure blue or pure red. If one of the two colors were removed from the visual field and replaced with empty (but not black) places, the resulting quality would have what is called diminished intensity. If both the filled and empty portions of the field were large enough to be noticed, we would perceive a clear juxtaposition of filled and unfilled places; we would not be misled into assuming that we are dealing here with any so-called intensive magnitude, or a magnitude that has no parts. Only because the individual parts are imperceptible and because all parts together produce the total impression of a less intense color, do we have the illusion of a special kind of magnitude without parts, that must be distinguished from extensive magnitude. And so in fact, the so-called degrees of intensity pertain to extensive magnitudes which are divisible into parts. They pertain in other words to the greater or lesser density of a given appearance (below the threshold of noticability of local differences).

Brentano first presented this theory in a lecture before the Psychology congress held at Munich in 1896. The text was included in the record of congress proceedings, and later reprinted in Brentano's *Untersuchungen zur Sinnespsychologie* (Leipzig: Duncker und Humblot, 1907), under the title "Über Individuation, multiple Qualität

und Intensität sinnlicher Erscheinungen." Apparently the book had little influence: even now psychologists accept the theory of intensive qualities despite Brentano's critique. But this only proves the dangers of separating psychology from what is strictly philosophy. [Kastil here notes that he plans to include Brentano's statement of his theory of intensity in what he had planned to call Part II of Volume III of the *Psychologie vom empirischen Standpunkt.* This material is included in the second edition of the *Untersuchungen zur Sinnespsychologie,* edited by Roderick M. Chisholm and Reinhard Fabian, Felix Meiner Verlag, 1979. R.M.C.]

107. According to Brentano this view is mistaken. A quality that completely fills its place cannot increase its intensity.
108. That is to say, te tone or the smell would exist without requiring the existence of *other* tones or notes.
109. According to the traditional theory, intensity is independent of any variation of quality or of place, and so stands in the same relation to quality as does place. Now, since intensity, just like place, is a characteristic common to all sensible qualities, it would have to be regarded as one of the so-called common sensibles like place.
110. What distinguishes the red spot here from the red spot there is a specific difference of the genus place. What would distinguish the softer from the louder note, according to the theory here being criticized, would be a specific difference of some not further defined genus X which is supposed to yield the sense of the term intensity.
111. [In the German edition this footnote was quoted in Kastil's notes at the end. Brentano had intended it as a part of the text of the present article and later decided to delete it, perhaps on the grounds of relevancy.]
112. According to this theory, degrees of intensity are analogous to degrees of brightness. We call a given color more bright than another when it is more distant from black than the other. Non-being is thus thought of as analogous to black. Of course, it is absurd to speak of different distances from non-being. Moreover, the comparison with a degree of brightness fails for still another reason. Every simple color has its own specific brightness, and can have no other so long as the quality of the color itself remains unchanged. But according to the intensity theory, the louder a does not differ in quality from the softer a, and so it is comprehensible how the one can be said to be less distant from non-being than the other.
113. Meinong believed that intensity is characterized by its distance from zero, but his doctrine is poorly thought out. He fails to see that distances cannot be said to be magnitudes in the strict and proper sense in which extensions can be said to be magnitudes. He assumes that intensive magnitudes have no parts, and yet that they have degrees which are more or less distant from non-being. Either he did not realize the absurdity of the idea that a thing can be gradually reduced to nothing without losing any of its parts or, if he did, he assumed that something can be a mean between being and non-being, thus giving up the law of the excluded middle.
114. Just as a presentation must be distinguished from a judgment, so the question, *what* something is, must be separated from the question, *whether* it is. Anyone who subsumes judgments under presentations, as virtually all theorists had done before Brentano, may easily be led to assume that the existence of things, their "thatness," is also a part of their "whatness." This would imply that things are composed of *existentia* and *essentia.* One may ridicule this Scholastic doctrine (and the ontological argument associated with it), but one has not escaped from its errors unless one sees that it rests upon a false theory of judgment. Brentano was the first to show that when we judge about a thing we do not have it as our object in the sense we do when we merely think

about it. He showed that the "is" which transforms the expression of a thought into the expression of a judgment functions only synsemantically and does not express a concept. The same thing may be said of the substantive "existence." Compare the first five essays in this volume, and *Vom Dasein Gottes,* pp. 33ff., where Brentano exposes the fallacy in the ontological argument.

115. This addendum serves to remind those who speak of intensive magnitudes that they use the term magnitude in an improper sense, and that it is incumbent upon them to show how this extended sense of the term is related to its strict and proper sense. They can hardly deny that this is a case of homonymous usage, like that of the word "healthy." Brentano seems to be the only one to have seen the problem that is involved here.
116. Needless to say, the idea of compressing a body into a point is absurd: a point is a limit, not a self-subsistent thing. Brentano himself did not stay with the view that compression can be interpreted only in terms of the filling up of interstices which had previously been empty. He presupposes a different interpretation in the next two essays. What he is here saying is that it would be disastrous to physical theory to try to interpret compression by reference to degrees of existence.
117. This is Brentano's own theory of mixed qualities; compare the *Untersuchungen zur Sinnespsychologie.*
118. Brentano here refers to the simple intermediate color situated exactly "midway" between two simple colors. The color of the corresponding mixture would not yet mark the utmost limit of refinement, but we could not distinguish it from the result of such an extreme. The law of the stimulus threshold does not rule out the possibility of refining the perceived particles to any desired degree. This law says only that the stimulus will produce no sensation below a certain threshold; but it places no restrictions upon the size of the content of a spatial impression. Brentano's phenomenological observations do not refer to the relation between stimulus and sensation, but are concerned merely with the object of sensation and with what may be noticed and distinguished in this object.
119. If the color of dark violet were a simple intermediate color equally distant from black, red, and blue, it would be indistinguishable from a certain *mixed* color resulting from a mixture of black, blue, and red particles. If this mixture contained more black than red particles, and more red than blue ones, then the simple color would be less distant from black than from red, and less distant from red than from blue.
120. We would have this situation if in the course of a continuous transition from blue to red as many new species of violet were passed through as there are temporal points within an hour.
121. The text here is extremely concise, and no doubt requires a commentary. In paragraphs 21 and 22, if I understand them correctly, Brentano criticizes the theory according to which intermediate colors are simple. He does not adopt the theory himself, but holds that gray, violet, and orange are mixed colors. Nevertheless, he does not reject the theory as absurd before testing the arguments advanced by its supporters. Indeed, he even improves upon their arguments in paragraph 21 where he suggests a comparison that makes the theory somewhat more plausible.

    In his footnote Brentano formulates a seemingly conclusive argument against his own theory and in favor of the theory that intermediate colors are all simple. The argument might be put this way: "If simple intermediate colors were impossible, blue would be as distant from red as white is from black. But this is obviously contradicted by experience. If intermediate colors could only be mixed colors, the number of them

would be the same between any pair of simple colors. The number would be a function, not of the nature of the members of the pair of simple colors, but of the relative quantities of particles. If the corresponding portions of the visual field are equal in size, each portion could contain the same number of equally large or small particles, whatever their qualities may be, and so their distribution would not depend on the nature of the two simple colors. But experience shows that the opposite is the case: the distance between black and white is much greater than that between blue and red."

Brentano replies as follows: Experience shows only that the number of nuances of gray that we can distinguish is not the same as the number of nuances of violet that we can distinguish. And what we can infer from this is simply that degrees of noticability depend, not only on the spatial relations in the visual field of the different elementary colors that are mixed, but also upon the nature of these simple colors themselves.

A rough draft of the present essay contains the following note on how to determine whether the distance between one pair of qualities is greater or lesser than that between another pair:

> If the observer's ability to discriminate is completely uniform, he will find that the distance between any two qualities is the greater, the greater the number of just noticable intervals on the straight path leading from the one extreme to the other. Compare the distance between two qualities *a* and *b* and two qualities *c* and *d*. In the following situation there would be a greater number of just noticable differences between *a* and *b* than between *c* and *d: a* and *b* are mixed in a certain ratio *v* and the result is distinguishable from pure *a;* and *c* and *d* are mixed in the same ration *v* and the result is not distinguishable from pure *c*. Thus a larger number of just noticable differences can be inserted between *a* and *b* than can be inserted between *c* and *d*.

Another dictated text (undated) contains the following rules for measuring brightness:

> (1) Try to discover what nuance of gray is as bright as a given color, e.g., a pure red. This is done by determining which grays most noticably differ from the pure red. This can be done by means of a color mixer.
>
> (2) In this way the brightness relations of pure red, blue, yellow, and the like can be ascertained.
>
> (3) Then the qualitative difference may be investigated: add some whitish gray to the darker color and an equal amount of blackish gray to the lighter color until you obtain two equally saturated colors which are also equally bright. One can do the same thing with three colors. By comparing the number of just noticable differences, we learn which colors (apart from differences of brightness) are more distant from one another.
>
> (4) It is important to note that a similar method might be used to determine pitch differences between sounds after determining their relations to a completely unsaturated note.

122. The arguments in support of Brentano's contention that the sensation of green is composed of blue and yellow are set forth in his *Untersuchungen zur Sinnespsychologie,* pp. 7 ff.
123. A person affected with red blindness, who is able to recognize simple blue and yellow, is unable to perceive a mixture of these colors as green. Brentano provides an explanation for this in the *Untersuchungen zur Sinnespsychologie,* p. 23; compare also p. S1-2.
124. Two spots differing in color are perceived as such even when they become smaller and smaller, as long as each is distinguishable from the other. Their qualitative difference does not diminish concomitantly with their decrease in size but remains. But when

they no longer have any finite size they are also without color, and so could not be said to have a color which would be the analogue of the earlier mixture.

125. The manuscript contains a passage in which the same idea is stated as follows:

> I should also deal explicitly with an objection that might be raised against the theory of intensity that I have outlined. Thus one might say: "The transition from one quality to another can be interpreted in two ways, as a process of mixing imperceptible particles in every possible ratio or as a series of a simple color nuances. So, too, therefore the transition between a quality's being and non-being can be interpreted in two ways. We may assume that it involves the presence of any number of imperceptibly small gaps in every possible ratio. Or we may assume a series of simple qualities situated between the given quality's being and non-being like a series of points on a straight line."
>
> I would reply as follows: (1) So far, no one has put forward such a hypothesis. If one did so, one would have to say, for example, that a soft note and a loud note cannot be of the same quality. (2) A transition from one quality to another, in which every intermediate quality is as completely real as the two terminal qualities, is one thing; but a transition from a quality to nothing, which would imply the existence of a mean between a quality's being and non-being is something else again. The latter would correspond strictly to Aristotle's definition of motion as the actuality of a potentiality *qua* potentiality. Aristotle himself says that this sort of actuality, though not absolutely inconceivable, is difficult to grasp. But the paradox is not resolved by proving that such an assertion is not self-contradictory, and in fact no proof of this sort is needed at all. It is enough to show that motion, no matter how fast, has just as much to do with complete entelechy as does rest, and that the degree of reality in either case varies only with the increase or decrease in mass of that which is moving or at rest.
>
> And so, if our interpretation of transitional quality as multiple quality is as good as established, then our theory of intensity and the important consequences we have drawn prove to be uncontradicted.

126. Paragraph 26 is highly condensed and therefore may be difficult to understand.

The first paragraph may be paraphrased as follows. We see that when we move in a straight line starting from blue, we pass though violet and in the end arrive at red. This is not an instance of direct knowledge, but rests upon the insight that here the transition is affected by a mixture of colors and that the shortest path from blue to red leads only through a mixture of these two simple colors. The path may be called a straight line. The transition from blue to red is affected by successive additions of red and corresponding subtractions of blue, so that in the end pure red is reached and no blue is left.

In the second paragraph, Brentano tests the soundness of this argument against a hypothetical objection. An adversary of his theory might say: "If we move directly from black to red, we find red at a certain distance D from black, and everyone will agree that red is a simple color. Consequently we should expect that if we were moving directly from black to white, we would find a similarly simple color at the same distance D. But the color we find in this case is gray, and so gray, too, would have to be a simple color."

Brentano replies: It is *not* obvious that when moving from black toward white we should find a simple color as distant from white as red is from black. If this were the case, then one could say with equal justification that if we prolong the line connecting black with red we must find another simple color, namely, one as distant from black as white is distant from black.

127. Motion differs from rest, but both are equally real. The same could be said of simple intermediate colors: they would be just as real as the mixed colors which are their ana-

logues. Not so the degrees of intensity as interpreted by the old theory. The lower degrees were thought of as "less real" than the higher. The theory of simple intermediate colors, however untenable in other respects, is not burdened with this absurdity.

128. Such transitions are only apparent in our sense-experience. What we have is in fact mixed experience whose elements are discrete qualities. Whether in fact there can be such things as simple intermediate qualities is another question. If we say there cannot be such things, we must assume that transcendent qualities of the external world, the qualitative properties of bodies, cannot undergo infinitesimal qualitative change. Brentano, it would seem, does not go that far. In the two essays that follow, he maintains that contraction of perfectly dense masses is associated with a specific qualitative change which must be conceived as *continuous* in order to account for the elasticity of elementary corpuscles. This is in line with his thesis that simple intermediate colors are not absurd as such, but that their rejection is justified on empirical grounds. Compare the *Untersuchungen zur Sinnespsychologie,* and the appendix entitled "Zur Frage der multiplen Qualität" (pp. 159-161). Brentano does not rule out *a priori* the possibility of simple intermediate qualities, but he points out that one cannot postulate the existence of simple qualities situated between qualities which are such that by their nature they rule out the possibility of such intermediates. As he put it, "Either *all* simple qualities or *none* are such that they can be intermediate between other simple qualities."

129. If every shade of violet were a simple color, each would differ from the others in respect of teleiosis. But, if violet is a composite color, its blue and red components being situated imperceptibly close to one another in space or in time, then no spatial or temporal point partakes of violet in any degree, but the majority of them are either red or blue in full plerosis. A minority of them form the surface boundaries where one color begins and the other ends. These boundaries are both red and blue, but neither color is in full plerosis.

130. Brentano has described this essay and the two that follow as addenda to his doctrine of intensity. He discusses the question whether his own theory of intensity, as outlined in the preceding essay, should be revised to account for the phenomena of compression and elasticity. His answer is no. He continues to maintain that the traditional doctrine, according to which qualities can vary in intensity without varying in any other way, is self-contradictory. Genuine magnitudes, he insists, must have parts. The intensity of sense qualities is a function of the parts of sensible space [*Sinnesraum*].

    The real places, with which the physicist is concerned, are filled with something transcendent to us, of which we have no specific idea, but which falls under the concept of quality. These transcendent qualities (and we must assume that there are many species of them) are associated with measurable effects; the latter are often divisible into parts and thus can strictly be called greater or lesser. And so in relation to these parts, we may speak of a greater or lesser intensity of the forces that produce them. But these forces themselves are transcendent qualities, which may be constant or variable. The intensity of the effect they produce need not depend on how densely a given quality fills its space; it may also depend on variations in the quality itself. In the case of genuine elasticity, as is exemplified in the ultimate corpuscles of matter, continuous qualitative changes correspond to degrees of compressibility. Such qualitative changes are in a way similar to the different degrees of teleiosis characterizing the places occupied successively by bodies moving with different velocities.

131. What Brentano means here is that the places occupied by a body after compression

are changed not *qua* places, but in respect of quality; they are not filled in the same way as they were before compression.

132. What follows until the end of the essay is an extract from *Über die Unmöglichkeit mehrfacher Erfüllung desselben Raumes,* a dictated text which bears no date but probably belongs to the same period as does the preceding material. Brentano's purpose here is to show that his theory does not contradict the principle of impenetrability.
133. Brentano's theory of axioms is discussed in Ernst Foradori, "Franz Brentano's Lehre von den Axiomen," *Archiv für die gesamte Psychologie,* Vol. 81 (1931), pp. 179-232.
134. Subsequently Brentano held that only place serves to individuate; but he continued to maintain that neither non-localized colors nor unfilled places can be intuited.
135. See Branislav Petronievics, *Principien der Metaphysik* (Heidelberg: Carl Winter, 1912).
136. One and the same place cannot be filled by two different species of the same genus – for example, red and blue. Brentano does not here take up the question whether one and the same place might be filled by different species of *different* genera – for example, red and warm. He notes elsewhere that the principle of interpenetrability does not rule out the latter possibility; it is possible for one and the same place to have several qualitative accidents provided the accidents are heterogeneous. There is no example of this, however, in the space of our experience. What if it were to happen? Would we fuse two heterogeneous qualities, thus seeming to find, for example a simple intermediate quality between red and warm? There would be no occasion for such fusion; for there is no *a priori* insight which would lead us to try to correct such an ostensible perception.
137. One does this when one ascribes degrees of strength to volitions or beliefs. But this is something very different from the intensity that is manifested in the loudness and softness of a note. Unfortunately this ambiguity in the term intensity is not sufficiently recognized. Compare Anton Marty's subtle analyses in "Uber Annahmen," *Gesammelte Schriften,* vol. II, part II (Halle: Max Niemeyer, 1920), and his *Untersuchungen zur Grundlegung der allgemeinen Grammatik und Sprachphilosophie* (Halle: Max Niemeyer, 1908), pp. 244ff.
138. "Substantial differences" is a better expression than "essential differences" for what Brentano means here. Even if the transcendent bodies which fill real places are held to be accidents (as Brentano was later to hold), the requirements of physics are taken into account by the hypothesis that they differ qualitatively. The inclination to ascribe such qualitative differences to the ultimate elements of matter appears to be increasing among natural scientists. It is manifested in the opposition on the part of the so-called energists to the mechanistic conception; compare also vitalism. See the appendix to the present work ("The Nature of the Physical World in the Light of the Theory of Categories").
139. The assumption that physical substances are all the same with respect to quality is improbable in relation to the assumption that there is no single cause of the origin of the physical world. It is also improbable in relation to any optimistic theism which holds that the world is infinitely rich and varied.
140. Here we have again what Brentano calls teleiosis; see note 101. Brentano often thus illustrates differences of teleiosis with examples drawn from the domain of color. He was fully aware of the fictive character of such examples; as we have seen, he denies that there *is* such a thing as a color continuum. But he believes that what he says of colors, is actually true of qualities that are transcendent to us. He also believes that the phenomenon of elasticity indicates something similar.

141. If we think of the surface in question as being rectangular, then the shades of violet will change more rapidly along lines parallel to the base of the rectangle than along the diagonals.
142. It would be absurd to suppose that a last moment of motion is followed by a first moment of rest if both are characterized by complete plerosis. But it is not absurd to assume that the same moment is at once the end of motion and the beginning of rest.
143. The absurd doctrine that things are composed of essence and existence is criticized in paragraph 17 in the first section of this essay. One uses this doctrine in order to interpret intensities as degrees of existence: we are supposed to get different intensities by adding different quantities of being to the thing.
144. The point of thus distinguishing clarity and distinctness is this: According to Brentano there can be intensities only when there are phenomena having parts which are not explicity apprehended. Thus there are intensities only when there is what Leibniz calls indistinctness – and what Kant, abandoning Leibniz's terminology, called unclarity [*Unklarheit*].
145. Brentano finds two contradictions in the traditional doctrine of intensity. The first is the thesis that, although intensities are not extensive quantities, they are nevertheless compounded of indefinitely many parts. This thesis is contradictory since an extensive quantity is by its very nature that which is composed of indefinitely many parts. The second contradiction consists in saying that these parts are many but are yet such that they cannot be distinguished from each other. Meinong attempts to avoid the first of these contradictions by maintaining that intensive magnitudes are magnitudes that have no parts. But such an assumption is contradictory, unless the term magnitude is used in an extended sense in the case of intensities. And if the term is used in an extended sense, then it must be possible to specify the strict magnitude to which it is related. But this cannot be done on the traditional doctrine of intensity. Kant tried to avoid the second absurdity by supposing that there is something or other that distinguishes the supposed parts of intensive magnitudes, but he failed completely to suggest what it might be.
146. From the essay *Vom Selbstbewusstsein, vom Ich und von der Substanz,* the major part of which is reproduced below (section B, paragraph 4).
147. The doctrine that two things can never be one thing and that no unitary thing can be a multiplicity of things is set forth in *Metaph.* Z, 1039 a 3. Here and elsewhere (compare *Aristotle and his World-View* pp. 20-22), Brentano is certainly right in connecting this doctrine with Aristotle's view that the *is* has a different sense in each category. But Aristotle's denial of the Platonic view, that substance and accident fall under the univocal concept of being, was probably based on an argument similar to the one Brentano rejects as invalid below. See, for example, section C, paragraph 15, in this essay.
148. What is meant here by the crossing or overlapping of substantial attributes is explained in detail in the final section of this essay. Aristotle might not have accepted Brentano's example, since the example involves changes of place and color, and according to Aristotle place and quality are accidental. When Brentano wrote the passage in question, he held that *here* and *red* (and of course also *there* and *blue*) were differences falling under the single unitary of the *spatially – qualitative* [*Ortlich – Qualitatives*] which he indentified with the concept of body. Later, however, he held that quality is one of the accidental categories.
149. Brentano has just noted that, according to Aristotle, if a cube exists, then half of the cube is not an actual but a potential thing; but if a *red thing* is actual, a *colored thing*

ia also actual. The cube is not its own halves, but the red thing *is* the thing that is colored.

150. Compare Brentano, *Aristotle and his World – View,* pp. 46-7.
151. Leibniz's theory of the continuum was never completely worked out. According to Brentano's interpretation Leibniz viewed the continuous as an infinite set of self – subsistent points which we perceive in a confused way and thus link them subjectively as though they formed a whole. Brentano says that this view is absurd on two counts:
(1) it implies that there is an actual infinity of self – subsistent things; and (2) it implies that each of these things is a mere limit or boundary (for one can say only of limits or boundaries that each is such that nothing is contiguous to it).
152. Compare *Von sinnlichen und noetischen Bewusstsein* (*Psychologie III*), pp. 4 ff, and 12 ff.
153. On this point Brentano concurs with Plato and diverges definitely from Aristotle. Compare the interesting reflection below in the section entitled "Toward a Reform of the Aristotelian Theory of Categories", paragraph 15, and then the supplementary remarks in paragraph 17. In the course of this development, Brentano's conception of the strict sense and permanent core of the theory of categories undergoes a change. He no longer sees the essential purpose of the theory to be that of investigating the various senses of being. He now rejects the Aristotelian thesis of homonymy – the thesis that being is applied in different senses to substances and accidents. The point of the theory of categories is now seen to be that of determining the different ways in which a substance can be present in accident. Compare paragraph 2 of the following section.
154. In the later development of his view, Brentano conceded that Aristotle was right in subsuming qualities under accidents.
155. Compare, however, the discussion in the Trird Draft of the Theory of Categories, in part Three of this book.
156. For example, he regarded place as accidental despite the fact that no body can exist without occupying place.
157. Or, more exactly, "a generic concept in so far as one and the same individual falls under it can be differentiated in only one series". This is false, since a judger as such may be differentiated in several different accidental series: for example, with respect to quality; with respect to object; with respect to modality; with respect to epistemic character (as evident or blind).
158. Compare *Aristotle and his World – View,* p. 37.
159. Compare the revised analysis of the concept of relation in essay III in the present part of this book.
160. This was the view of Aristotle. And apparently Descartes was of the same opinion, for otherwise he could not have specified what distinguishes geometric bodies from physical bodies. According to him, a body is an extended thing, i.e., it is a subject to which extension belongs as *modus*. This subject is capable of moving in non – empty space; that is to say, in the course of such motion one body always displaces another. But it remains the same individual in the course of this change of place. Now according to Descartes bodies cannot be distinguished from one another with respect to qualitative differences. Hence he would have encountered serious difficulties if he had asked what it is that individuates bodies. Possibly this gap in Descartes's account is the reason why Leibniz stressed the importance of his *principium identitatis indiscernibilium.*

161. This undated dictation had been entitled "Theory of Categories, Final Version", but is was superceded by later versions. Brentano here still thinks of quality as a substantial determination and he still assumes that relations require the existence of the terminus. This text antedates the preceding section which held there to be a unified general concept of being for both substances and accidents. But in the present text, he wavers on this point. In the main body of the text, he rejects the thesis of synonymy – the thesis according to which being is said in the same sense of both substance and accident; but in the addendum, he holds this to be an error.
162. See *Categories,* 4, pp. 1, 25; *Topics,* I, 9, p. 103b21.
163. Brentano defends this observation in paragraph 15, but then rejects it in paragraphs 17 and 18.
164. *Aristotle and his World – View,* pp. 20-1.
165. [*"Wirklichkeit"* is here read, at Kastil's suggestion, as "form."]
166. Brentano here refers to all the superordinate substantial determinations including the general concept of substance. According to Aristotle the latter concept did not fall under a more general concept of being.
167. As noted previously, Brentano was later to decide that sensible quality is accidental.
168. Brentano is here thinking of continua as subjects of predication.
169. Sensible qualities would be the best examples of psychical accidents, but since Brentano does not here recognize them as accidents, he must cite other examples.
170. Brentano used the expression "absolute accident" in two different ways. Sometimes he took it to include the passive affections, excluding only comparative relations; sometimes he restricted it to the so – called "inherencies", those accidents that inhere in their subjects.
171. Brentano later referred to these as "passive affections."
172. Brentano is here on the way toward eliminating relations as a separate category. Compare his discussion in essay III, below.
173. Of course, this turns on the definition of substance. Descartes had defined it as *"res, quae ita existit, ut nulla alia re indigeat ad existendum".* But this is not definite enough and has led to misunderstandings. Thus one must ask whether *"nulla alia causa"* or *"nullo alio subjecto"* or both. If substance is defined by reference to both types of dependence, then only God is a substance. This failure to distinguish sharply between the two types of dependence is probably what led Spinoza to attribute substance only to God and thus to deny that there are finite substances.
174. Brentano here presupposes that place is substantial.
175. Brentano was later to hold that physical bodies have accidents which are analogues of sensible qualities. In speaking here of the mental character *[Geistigkeit]* of psychical accidents, he is referring to the fact they have an unextended subject. He here presupposes that states of consciousness are present to inner perception as being mental. He was later to correct this and to say that they appear without spatial extension. He continued to hold that in fact they have no spatial extension; this fact, however is not immediately given but is arrived at only as a result of a careful investigation. Compare *Vom Dasein Gottes,* pp. 419ff.
176. See *Psychology,* p. 276; *Von sinnlichen und noetischen Bewusstsein* ("Psychologie III"), p. 80; and *Untersuchungen zur Sinnespsychologie,* p. 119.
177. In asking whether accident and substance can be called being in the same sense, the point is, not whether the concept of an accident falls under the concept of substance, but whether both concepts fall under a more general concept of being. This latter could be the case even if the concept of accident did not fall under that of substance.

But Aristotle did not accept this, for he assumed that it is impossible for an individual to have at one and the same time several determinations falling under the same genus. Hence if one and the same thing were a substance as well as an accident, then both substance and accident could not fall under a single general concept. But Brentano rejects this general assumption and, in paragraphs 17 and 18 of his supplementary remarks, he says that both substance and accident fall under the wider concept of being.

178. "Thinking mind" would suggest a more general concept than "judging mind."

179. But Brentano rejects this in his supplementary remarks, below, where he affirms the unity of the concept of being. He continues to hold, that there is a multiplicity of categories, but his ground for this is, not the homonymy of being, but the fact that there are different ways in which an accident may exist in its substance.

180. Brentano rejects this in the the Third Draft of the Theory of Categories in part Three of this book.

181. Thus the thought of a sphere one meter in diameter would not define a complete individual substance even if the thought included, *in specie,* the absolute space of the sphere. For, according to the view here presupposed (and subsequently abandoned) every spatial entity must have some qualitative determinations. These qualitative determinations would also be substantial, but the idea of a substance *in individuo* is given only when all these substantial determinations are united in the *species infimae.* But contrast again the third draft of the theory of categories, below.

182. The "logical series" comprises all the specific determinations from the most general down to the *specie specialissima.* A thing falls under as many logical series as it has *specie specialissima.* According to Aristotle these series must be thought of as parallel to each other. But according to Brentano they all come together in the most general concept of a thing, as in the apex of a pyramid. Some of them even merge at a lower level of abstraction. An example of the latter is provided by the series pertaining to the quality of judgment and that pertaining to the modality of judgment.

183. Suppose I say of myself that I am thinking. The person who understands my words then thinks of me as something that is but he does not think of me in a completely determinate way; he has no doubt, however, as to who it is that I am speaking of.

184. *A self that judges* would be an example of such an accidental universal – provided there is no further determination with respect to whether the judgment is affirmative or negative, apodictic or assertoric, blind or evident. These three pairs belong to different series and it is necessary to consider all of them if one is to arrive at a complete accidental determination. (Whether evidence and modality are accidents of quality, and are thus secondary accidents, or whether they are coordinate with quality need not be considered here. But it should be noted that, in certain circumstances, these two series can be made completely determinate only be reference to negations. "Blind" and "assertoric," after all, refer to privations.)

185. In my opinion, we cannot properly understand the word "substance" until we abandon the thought that, in the substantial series, there is a general concept substance falling under the highest concept of *thing,* or *something.* I would say that "substance" is not a genuine name; it is synsemantic rather than autosemantic. But we do have a genuine name in the case of "thing-that-includes-a-substance," and this means the same as "accident." The general concept of accident can now be specified in two different series – one of them accidental, the other substantial. We have an accidental series in the case of: thinking; judging; affirming; affirming a thing *N.* We have a substantial series in the case of: accident which includes a place as subject;

accident which includes this place as subject. Or again: accident which includes a mind as subject; accident which includes me as subject. But we should note, as Brentano does, that we human beings are able to make only a few of these substantial differences intuitively clear. We do have the strict concept of a place in general, but we have no such strict concept of any particular absolute place *in specie*. We have to make use of surrogate concepts and refer to things which stand in spatial relations to each other. Nor do we have the general concept of a mind; here, too, we make use of a surrogate and think of a thing concerning which we deny that it is spatially extended. And, *a fortiori,* we have no intuitive idea of a mind *in specie*.

186. In this case, there would be no unity of consciousness. Compare *Vom Dasein Gottes,* p. 422.

187. "Substance" does not mean the same as "thing in general," for the latter, but not the former, is autosemantic. And the synsemantic function of "substance" is not always the same. Thus if we say of a thinking mind that it is a substance, what we are saying is that the thinker is "a thing that includes a mind as its subject." On the other hand, if we say of a mind which happens not to be thinking (the mind, say, of someone who is in a dreamless sleep) that *it* is a substance, what we are saying is this: it is possible that there is *no* thinker, no accident, which includes it as subject, and it is also possible that there *is* a thinker which includes it as subject. Brentano uses the expression "substantial" in still another sense, when he says of the absolute time determinations (which are transcendent for us) that they are substantial. Here he means: "A thing without such determinations is impossible." For these determinations cannot fall away without being replaced by other such determinations. These determinations, however, do not define a complete thing. Each of them, considered in itself, is a universal, since everything that there is is specifically the same with respect to time.

188. Brentano seems to be saying this: since the concept of being in the sense of a *thing* is a unitary concept which constitutes the summum genus, we cannot define the categories, as Aristotle did, by saying that they are the highest genera. At most we can say that they are the highest differences of the summun genus – they are its proximate genera. But, assuming that they are alike in this respect, what is the justification for holding that substance is a category distinct from the accidents or for holding that the accidents belong to different categories? This is the fundamental question raised by the theory of categories. In order to answer it, it is necessary to investigate the different ways in which a metaphysical whole can include its subject as part.

189. Paragraphs 1 and 2 of this text are from a ms. entitled, *"Philosophische Meinungen über die Substanz,"* dated 14 April 1912; paragraphs 3 through 9 are dated 1 May 1913; paragraph 10 is from an essay on the concept of substance in Mill and Wundt.

190. In other words, according to Aristotle, the term being applies univocally to determinations falling within the same series. But it does not apply univocally to determinations falling within different series. As further commentary, consider the following passage from an undated manuscript entitled "Zur Kategorienlehre." Brentano is here simply setting forth the views of Aristotle:

> When we consider an individual thing, whether intuited in outer sense perception or in inner perception, we find that it falls under various concepts. This is clear in the case of the things that are given in external perception. The thing is given as located here or located there, and more generally as being located; it is given as spatially extended to a certain definite extent, and more generally as spatially extended; as having such-and-such a particular shape, and more generally as shaped; as red or blue, and more generally, as colored; as warm or cold, light or dark, and so

on. And analogously *mutatis mutandis,* for sound and touch.

All these general determinations when united [*miteinander-vereinigt*] constitute the object of what is given in intutition; they present the *concretum* of these determinations. If any of them falls away or is replaced with another, then the thing that we intuit no longer presents itself as the same individual thing.

When we consider these determinations of the thing, they present themselves as ordered in a series: as being here and spatially determinate; as being red, colored and qualitatively determinate; as being spherical and determinate with respect to shape; as measuring one cubic foot and spatially extended. Each series ascends from proximate species to genus and sometimes again to a higher genus.

No one of these series of superordinate and subordinate determinations comprises all determinations. Thus *being here* is neither subordinate nor superordinate to *being red.* They are, so to speak, attributed to the thing from different sides or different directions. And it is because of this difference in the mode of predication that they present themselves as belonging to different categories.

But red and colored on the other hand are predicates that lie in the same direction. So, too, when we ascend from color to quality in general. If each series is viewed as a straight line terminating in a highest concept, the most general concepts in each series must differ essentially from one another. And so one would have to assume that the real individual falls not under one but under several higher genera.

If we regard "real" [*"real"*] as the term for the most universal determination under which an individual falls, then the term is equivocal: it has as many senses as there are ways and directions of predication.

In the foregoing passage Brentano sets forth the Aristotelian doctrine. In the passage that follows he states his objections to it:

These inferences are far from correct. We should say rather that, just as *one* individual thing is determinately specified in its individual reality by determinations which come to it from different sides, so one and the same general concept can be differentiated in different directions. And just as the determinations of the real thing which we sensibly intuit unite and reciprocally individuate each other at the lower end of the series, so they come together at the upper end which is their common point of departure.

Brentano was later to reject the idea that universal attributes reciprocally individuate one another (see the Third Draft of the Theory of Categories).

191. For example, whatever falls under the concept of color must also fall under the concept of that which is spatial.

192. If it were true that there could be no such thing as a place without a quality, then it would follow that the absolute species of place as such would not yield individuation. And no further differentiation in the species of place, if indeed such a species is thinkable, would yield individuation. A place without a temporal determination is not a complete thing. And an empty time species would not be an individual. An individuating determination would be a specific mark which can hold only of this individual. It would have to be absent in any second individual which might unite all the other determinations of this individual.

193. In the Aristotelian sense of this term, a definition is a concept having constituent concepts in every level of abstraction from the lowest species to the highest genus, and excluding any determination outside the series of those generic concepts. But this condition is not fulfilled by the concepts of accidents, since the thought of an accident must contain, if only in the most general way, the thought of something that is not an accident. Indeed, the concept of an accident is the concept of something that contains

an ultimate subject. On the gradual development of Aristotle's own theory of definition, compare *Aristotle and His World-View,* pp. 17 ff.

194. I perceive my self as seeing and as hearing, and I am certain that this self is a single, unitary thing and not a mere collective; but I do not perceive the mark which distinguishes this thing from any other thing that might have the same perceptions. We "see" a tree and do not doubt that it is *one* tree, but we do not see that which distinguishes it from all similar trees.
195. Compare *On the Several Senses of Being in Aristotle* and *Aristotle and His World-View,* p. 44.
196. This is the relation of the thinker to that which is thought. "Being a thinker" is a real predicate, but "being thought about" is not; for things that do not exist can be thought about. Aristotle's three-fold classification of relations is discussed in more detail in essay III below.
197. The mystery of the Eucharist was interpreted as follows: the bread and wine lose their substance, for each is transformed into another, but their accidents and their sensible manifestations remain the same. Descartes suggests a similar view. It had been objected to Descartes, that his view, according to which body is to be equated with extension, is inconsistent with dogma; he replied that, in the case of the Eucharist, only the bodily surfaces remain and that these suffice as bearers of sensible perceptual modes.
198. Compare the following excerpt from one of Brentano's notebooks on metaphysics (Würzburg, 1870):

> According to Aristotle, only substance is a being [*ein Sein*] in the strict sense of the word. The being of accidents is rather a matter of *being in* [*ein Innewohnen*] a substance. Thus accidents may be said to *be* only in a weaker, extended sense; an accident is not *a being* [*ein Seiendes*] but is something which is *of a being* [*eines Seienden*]. Thomas Aquinas interpreted the doctrine of the Eucharist to imply that quality and hence the other accidents of extended substance are separable from the extended substance. Thus he gives up the doctrine that the being of quality is a matter of *being in* a substance, even though he held that quality is not a reality [*Realität*] in the same sense that substance is. Nor did he assert that other accidents are equally separable from quality.

   This excerpt shows how radically Brentano departed from the Aristotelian-Scholastic concept of substance. According to him, the accident does not exist in the substance; rather the substance exists in the accident as a part of the accident. The accident and substance are not merely homonymous; they are real in the same sense. The accident is more, not less, than the substance: it is the whole that contains the substance as part.
199. Places are what yield individuation and so the extension cannot remain the same when there is change of place. As Brentano observes, Descartes makes a similar error with respect to the mental sphere. For Descartes makes thinking a substance which persists as individually the same, but he is unable to specify anything with respect to which it could even remain specifically the same.
200. And so this thought at least should persist.
201. What is absurd is the thought that God has accidents, not the thought that he is a direct cause. Descartes does not clearly distinguish the underlying subject from the underlying cause and so he comes dangerously close to Spinoza's absurd conception of substance.
202. Spinoza says that a sensation is a mode of the attribute of thought, and that a ball is a

mode of the attribute of extension; in fact, these are examples, not of the relation of accident to substance, but of the inclusion of the concept of a species within that of a genus.

203. These are the incorruptible substances, which include not only God but also the heavenly bodies and the souls of the spheres. Compare *Aristotle and His World-View,* p. 143.

204. Since the nominalists do not recognize general concepts they cannot say that a word such as "gold" has the same meaning when it is used to describe a watch and a coin; they must say rather that it is used equivocally. If the word "gold" is replaced with a composite name whose components are currently believed to designate the attributes of which the concept gold is composed, this again requires a nominalistic reinterpretation. For the partial names, too, are homonyms, not universals. The nominalists, then, go on to say that things designated by so-called accidental names, such as "yellow," "hard," and the like, have much less in common with one another than those designated by so-called "substantial" names. But this interpretation actually contradicts nominalism. For those who reject universal concepts cannot consistently say of any plurality of things that the things can be thought to be more or less similar to each other.

205. These elements cannot be said to differ merely conceptually, for the subject may be detached from them – that is to say, it can exist without modes.

206. A soul in a state of dreamless sleep would be a πρωτη ἐνέργεια, a thinking soul would be a δευτέρα.

207. The positivists of the Vienna Circle have been tireless in the criticisms of the distinction between the thing in itself and phenomena; see their journal *Erkenntnis.* This is understandable for they are thinking of the Kantian view. According to this view the objects of physics have mere empirical reality since they exist in space and time: a transcendental thing in itself is supposed to lie behind them, but it is completely unknowable since it falls under no concept. The Kantian doctrine is in fact a tissue of absurdities. A thing that is not situated in time is a contradiction in terms, and the hypothesis that there can be things that do not come under any concept is completely incomprehensible – or to the extent that it *can* be grasped, it is absurd. Whatever exists must at least fall under the concept of *thing.* Moreover, as Brentano has demonstrated, discourse about different degrees of reality or existence is purely fictional. The hypothesis that there are bodies and that they are governed by the laws of physics has an infinitely high degree of probability. But it is senseless to say that these bodies are only "empirically real" and that there is an unknowable thing in itself behind them. And so we must concede that Schlick, in his essay on positivism and realism, is correct in attacking this doctrine. But all this has nothing to do with the distinction between phenomenon and thing in itself, which is upheld by Brentano and, I believe, by most philosophers. Everything we can think of falls under the concept of thing, but not all things can be said to exist. When we intuit something that has no independent existence (e.g., a color), we say that it is a phenomenon; but of the thing that *produced* our intuition, we say that it is a *thing in itself* lying at the basis of the phenomenon. Any objection to this interpretation can be based only on misunderstandings. Actually the positivists, from Mach onward, have formulated their basic concepts without clarity or precision, and it is not surprising that the consequences are confused. The initial confusion was Mach's failure to recognize the distinction between experience and what is experienced. The high point of confusion is Schlick's pronouncement that Descartes' *"Cogito ergo sum"* is a meaningless

sentence. There is an unpublished treatise by Brentano on Mach's *Erkenntnis und Irrtum*. Publication of this treatise would provide an opportunity for coming to terms with this new form of positivism. Its representatives include many experts and many penetrating thinkers, who are to be praised for their energetic opposition against the decadent but widely acclaimed "idealistic" philosophy.

208. The term "essence" is used in this sense by Locke.
209. This essay is especially important for understanding the doctrine of substance and accident. It is an excerpt from an undated dictation headed *Von der Seele.*
210. This observation supports my contention that "substance" is not a genuine name, for there are no negative ideas. Compare *Psychology,* pp. 294-5.
211. It may be noted that Scholastic logicians often treated the specific differences as something independent and separable from the genus. Those who treat the substance enriched by an accident as a collective composed of two parts, namely, substance and accident, are indulging in a similar fiction. The second part that is supposed to be added to the substance is treated as a separate individual and is called an accident; and the specific difference was treated as a new thing added to the genus. Given the latter fiction, some philosophers thought of the specific difference as a part of the species, conceiving the latter as a compound of two concepts, the genus and the specific difference. They could thus maintain consistently that the difference does *not* contain the concept of the genus. But this is all fiction. If we restrict ourselves to examples which belong to the domain of simple concrete concepts we will not fail to recognize the fictive character of such divisions. But one is easily misled if one makes use of examples involving transcendent things, for one then appeals to genera and species which are mere surrogate concepts. An example will best illustrate what I mean. Think of a man who was born blind and who formed the general concept of quality on the basis of sensations other than visual. He knows the difference between a genus and a species of quality; he has concepts, say, of a musical note and of the note C, and he can clearly distinguish C from any other note on the scale. Having realized that he is sightless, he tries to form an idea of the advantage sighted persons have over him. The concept of sound and that of temperature belong to series which have their ultimate species. It now occurs to the man that there are other such series. He cannot form any concrete representation of the visual series, but he makes use of surrogates. Then he may think of color as being the object of a sensation that is caused in a certain way, say by something falling within certain wave lengths, and he will think of red as something more determinate in this area. He may apply the term difference to the psysical concepts which he thus uses as surrogates in his construction of the genus and species transcendent to him; but this sort of "difference" cannot be said to contain the true concept of genus. In dealing with things in the external world we often reason like this blind man. More particularly, in the domain of the descriptive natural sciences we use surrogate concepts which must replace the actual genera and species that are transcendent to us. Now Aristotle himself draws upon the transcendent domain for his examples of the relation between genus and species, especially in zoology. He frequently mentions differences which do not conform to the law according to which the difference coincides with the species and contains the genus. His observation *το γὰρ γένος οὐ δοκεῖ μετέχειν τῶν διαφορῶν.* ("The genus is not thought to inhere in its differences"; *Met.* Z, 1037b18) seems to deny, not that the genus is contained in the difference, but rather that the difference is part of the comprehension of the genus. Hence Lasson's (German) translation of the passage is correct: "The genus, it would seem, does not contain the conceptual difference of the

species." Only when the text is so interpreted does the passage harmonize with the rest of the chapter. Thus Aristotle illustrates the law according to which the differences of a species must contain the concept of that species and he appeals to examples of (supposedly) substantial differences. He says that, when this law does not seem to hold, the reason is that further divisions are made not according to genuine difference, but "in an inept way" by means of accidental marks κατὰ συμβεβηκός. (Compare Brentano's observations on the transcendence of the substantial definition in *Aristotle and His World-View,* pp. 53 ff.) It is true that Aristotle does not say that the proposition "the genus cannot be predicated of the difference" is a law. And yet it is on the assumption that there is such a law that he bases his proof that being is not a genus (*Met.* 998b22-27). In order to gain full understanding of Aristotle's theory of definition one must take into account what Brentano says about its development (op. cit., pp. 17-21).

212. Instead of "Every generic concept has only one proximate difference," which might be misinterpreted as denying the possibility of co-ordinate species, it would be clearer to say this: a given individual can fall under a given genus only in virtue of one proximate difference. According to Aristotle there are corporeal and mental substances, and both fall under the same general concept of substance, but one and the same thing cannot be both, at least in respect of the same part.
213. Here Brentano still assumes that spatial determination is as inseparable from qualitative determination (*in genere*) as quality is from place, and therefore that there can be no empty places. If this assumption were correct, neither the species of quality nor the species of place could serve to individuate. But Brentano subsequently drops this assumption (compare part Three, Second Draft of the Theory of Categories, paragraph 17). He came to the conclusion that there is no absurdity in supposing that a spatial continuum could exist after losing all qualitative determinants. He held that the relation between place and quality is not one of reciprocal interpenetration, but one of subject to accident; place alone is substantial, and quality is accidental.
214. Brentano is not denying this fact: on the basis of the idea of color in general and of blue in particular, we can know *a priori* that blue is the lower end of the series; nothing is a difference of blue in the way in which blue itself is a difference of color. It is evident that a place can only be an ultimate subject. It is also evident that we reach an upper limit in this series if we go in the other direction, for we may say *a priori* that no concept can be more general than that of a being in the sense of *something* (*thing, ens reale*).
215. Given his subsequent view about the relation between spatial and qualitative determinations (that the former are substantial and the latter accidental), Brentano could have offered an example of one-sided separability drawn from the physical domain.
216. These terms are unfortunate for still another reason: they suggest that the substance contains the accident, whereas the opposite is the case. The accident is the metaphysical whole, the substance is the part.
217. The one who judges apodictically is here called a different accidental whole from the one who judges with evidence, even though in both cases the primary subject is the one who is judging negatively. For an apodictic judgment can be either blind or evident, and an evident judgment can be either apodictic or assertoric. The one who is judging negatively is the subject, not only of the one who is judging apodictically but also of the one who is judging with evidence; hence it may be natural to say that we are dealing here with *one* accident. Needless to say, this case involving "two accidental wholes' is to be distinguished from the case where we have two primary

accidents of the same ultimate subject (as when there is simultaneous seeing and hearing).

218. One can speak without absurdity of a simultaneously given infinite plurality only with reference to a continuum. A continuum has boundaries which are species of the same proximate genus, but such species can vary infinitesimally. Where the proximate genus is not the same, there can be neither infinitesimal variation nor a continuum.
219. In a similar way, it is impossible that there be causation without a primary efficient cause. An infinity of secondary causes cannot replace the primary cause. And an infinity of subjects, each subsisting in the next one of the series, cannot replace the ultimate subject.
220. In view of the foregoing, one may hesitate to call God a substance. But we should not hesitate to apply the term substance to a thing which is capable of thinking but which at the moment happens not to be thinking. The term substance would have a different sense in the two cases.
221. Compare *Vom Dasein Gottes,* pp. 418 ff.
222. From *Das Seiende,* a dictated text inscribed "For Marty." It is clear from sections not included here that the text dates from a period when Brentano had not yet recognized that the *entia rationis* are fictions.
223. Brentano is here referring to collectives.
224. The nature of the atom would be contained in the concept of a thinking thing, not as genus, but only as subject. A genus cannot exist without specific determinations, but a subject can exist without accidental determinations.
225. Brentano later held that the sensible qualities of bodies are accidents; or more accurately, that which is sensibly qualitative (e.g., color) is an accident and that the place it fills is substantial. It is true that we do not have here an example of an accident that actually exists. But according to Brentano's final view, external physical objects are modifications of what is spatial, and hence they include what is spatial in a way that is analogous to the way in which sensible qualities contain the places they fill. Compare the appendix of the present book.
226. The present dictation represents the next to the last stage of Brentano's views about substance. According to the position set forth here, the notion of substance is derived from experience, both from outer perception and inner perception. Outer perception presents us with substances that are individually determinate, but inner perception presents its substance only generically as a subject without dimensions. Brentano did not remain with the latter view. He subsequently held that in inner perception we apprehend the subject even less determinately. We do not apprehend the subject in its individual determinacy as this mental thing: we do not even apprehend it as null-dimensional *in genere.* We apprehend it only as "this subject of our awareness." The expression "this subject" says no more than that there is a single subject for everything that is comprised in the present inner perception. We do not perceive what individuates the subject or even what the genus is to which it belongs. This blind spot at the center of inner perception is filled by reflection. We make an inference to something transcendent, and in so doing we must make use of certain surrogate concepts. For this further development of Brentano's theory, see the Third Draft of the Theory of Categories, below.
227. See *Vom sinnlichen und noetischen Bewusstsein,* pp. 22, 34 and 75.
228. The substance is given in inner perception merely as that which gives unity to the multiplicity of accidents. But we do not perceive that it is that which persists through change; this latter is a matter of inference. One should note that, in the present

section, the term "self-awareness" is taken in the extended sense set forth in the initial paragraph.

229. Actually what is shown here is only that *red* and *being-here* cannot both be accidental differences. In this passage Brentano presupposes that the primary spatial continuum is not something that is independent, but he later abandons this presupposition.

230. Brentano was later to revise some of this criticism of Aristotle. He continued to hold that it is possible for substantial differences to intersect. But in the Third Draft of the Theory of Categories he denies that individuation is a result of the unification of determinations which are such that none is sufficient by itself to individuate. After all, if none of the characteristics by itself is of such a sort that it is restricted to a single individual, how could their combination result in an individual? And so Brentano later holds, with respect to the objects of outer perception, that their individuation is a result, not of the unification of quality and place, but of the spatial species as such. This spatial species plays the role, not of a universal, but of a complete individual, provided one disregards its character as a boundary. An empty spatial continuum is not impossible. But it would be impossible if it were a mere universal. (Everything that exists must also have a determinate temporal species, but since this species is the same for all individuals that exist at the same time, it contributes nothing to individuation.)

231. This consequence is understandable only under the presupposition that the character of being-affected, if it holds of an accident, is an accident of that accident. Brentano seems to have accepted this presupposition for a time, but he later rejected it as impossible. See the discussion, "The Passive Affections," in the first of the final three drafts of the Theory of Categories.

232. This observation pertains only to primary consciousness; in secondary consciousness presentation and apprehension [*Vorstellen und Erkennen*] are inseparable.

233. This remark is directed against Leibniz's doctrine according to which activity [*Wirken*] cannot be ascribed to accidents. Leibniz does not deny that there can be accidents of accidents.

234. If what Brentano here says were true, then materialism could be refuted by the immediate evidence of inner perception. But Brentano subsequently corrects this observation. The fact of the matter, as he later makes clear, is that, so far as our states of consciousness are concerned, we perceive no extension or place. And whether the subject of consciousness is spatial or extended is a matter for investigation. Inner perception never presents us with what is false, but it has gaps and doesn't present us with everything. We can say with certainty that everything that is an object of inner perception belongs to one and the same thing (see paragraph 8 of the present section). But the question whether this thing is a body, or a finite part of a body, or a boundary cannot be answered without careful study. And such study does lead to the refutation of materialism. Compare the Third Draft of the Theory of Categories, below, and also *Vom Dasein Gottes,* pp. 418ff.

235. If the continuum which one calls physical space were curved, as some physicists hold, then it could be called "space" only *per aequivocationem.* For, to speak more exactly, it would be a three-dimensional boundary of a topoid having more than three dimensions.

236. If one has a presentation of red and of blue, then one has an intuitive presentation of differences of color; but it cannot be said, of one who thinks of his own ego and of that of another person, that he has an intuitive presentation of differences of soul or mind.

237. The argument in paragraph 7 requires some elucidation. The problem set forth in the first paragraph is this: Do we perceive our own self *in individuo* or only in a certain degree of generality?

The following may seem to support the thesis that we perceive our own self *in individuo:* each of us can distinguish himself from all other persons as being a particular self or ego (first paragraph).

But there are two arguments which would seem to speak *against* the view that we perceive ourselves *in individuo:*

(1) We are not able to cite any individual differences which would necessarily distinguish our ego from that of others (second paragraph).

(2) Although each person can perceive only himself, we believe in the existence of other minds. This belief is based upon an inference from analogy. And this inference, as everyone who rejects solipsism knows, is a reasonable one; that is to say, I am justified in supposing that that concept of substance which I find realized within myself has still other instances. But this very fact – that the concept I find realized within myself may have still other instances – makes it clear that this concept does not include my own individual difference. For it would be absurd to suppose that a concept including my own individual differences could have more than a single instance (third paragraph).

One might object to the first of these two arguments on the following grounds: The fact that we cannot cite our individual psychical differences means, not that we do not perceive them, but only that we do not notice them. But if this were true, then all that would be needed to bring the individual difference to explicit consciousness would be the comparison with a second such difference – with that of another ego (see the fourth paragraph).

And one might object this way to the second argument: In making the inference by analogy to other minds, we are not making an inference to something which has our own individual psychical differences; what we do is to abstract the general concept of a psychical substance from our concept of ourself and we then apply this general concept to others. Brentano does not himself explicitly formulate this objection, but the proper reply pertains to what was said in answer to the first objection above.

The reply (see the end of the fourth paragraph, and the fifth paragraph) is essentially this: either (1) we can abstract the concept of a substance from the perceived individual difference in the way in which we can abstract the concept of color from the intuition of red and blue; or (2) the concept that is exemplified in what we perceive is that of psychical substance in general – a concept which lacks individual determination and which is not abstracted from a more specific concept. Since the opponent concedes that the first of these two alternatives is to be rejected, we are left with the second.

And so Brentano finds that the considerations against the assumption of individual determinacy cannot be refuted. Thus he is left with the task of dealing with those considerations that seem to show the contrary. In paragraph 8, he shows how it is that we come to regard ourselves as a determinate individual and to distinguish ourselves as such from others.

238. See *Vom sinnlichen und noetischen Bewusstsein,* pp. 4ff. and 12ff.

239. See the discussion, "Unity, Things, and Parts of Things," in essay II in part One of the present book.

240. Brentano had planned to discuss these topics in detail in the fourth volume of his *Psychologie,* which was to be concerned with the relations between the physical and the psychical.

241. What is contained only implicitly in perception can sometimes be made noticeable, though often only with considerable difficulty. But what is not perceived at all cannot be made explicit under any circumstances. At most we can infer that it exists. This must be said, not only of our individual substantial differences, but also of our generic differences (in the present selection Brentano is not yet aware of the latter point). We have, therefore, no strict concept of what a mental substance is; we have to be satisfied with a surrogate concept which we arrive at by means of relative and negative determinations. Thus we say that the subject of our conscious states is something that fails to have the property of localization.
242. In *The True and the Evident,* Brentano criticizes the definition of truth in terms of agreement or correspondence.
243. The following are examples of a direct cause existing at the same time as an indirect effect: the insight which is reached in a chain of reasoning; or the case where we desire a thing because we desire a certain second thing and desire the second thing because we desire a third thing.
244. The analysis is not here carried through to its end; if it were, the case would not be an illustration of a causal relation wherein the terminus did not exist. A complex of causal judgments is involved here. The decision to exact revenge is brought about by hatred and this hatred outlasts its cause and is not a thing of the past. Instead of speaking of the effect as a working of the thing which no longer exists, it would be more accurate to speak of it as an after-effect [*Nachwirkung*].
245. Strictly, one cannot predicate anything of the terminus unless the terminus exists, but in order to predicate something of the fundament it is not always necessary that the terminus exists.

    In order to be clear about this point, we should contrast two different meanings of the expression "terminus of a relation."

    (1) We could understand the terminus to be the thing which is the object of the thought *in modo obliquo.* Thus, if we say that someone thinks *A,* then *A* is the terminus of the mental relation. If we say that a certain motion is caused by a push, then the push is the terminus of the relation of effect to cause. If we say that a chessboard is a whole made up of black and white squares, then each square is a terminus of the relation of whole to part.

    If we understand "terminus" in this way, we may say that the terminus is always a thing, and the question whether the terminus must exist if the relativum (the so-called fundament of the relation) exists should be answered sometimes in the affirmative and sometimes in the negative. It should be answered in the affirmative in the case of the relation of effect to cause and of that of whole to part; it should be answered in the negative in the case of mental relations.

    (2) Sometimes one understands the terminus of a relation to be the correlate of a relative determination which holds of the fundament. Thus the correlate of the one who is thinking *A* is the *A* that is thought about; the correlate of the whole is the part as such; and the correlate of that which is brought about is that which brings about. If we understand "terminus" in this way, then a terminus is not a thing, but only a being in the improper sense. The following is a more exact statement. The expressions "thinker," "whole," and "part" are names, and there are concepts which serve as their meanings; but the expressions "object of thought" [*Gedachtes*], "thing that causes" [*Wirkendes*], and "part" are *not* names in this same sense. Thus a thing can cease to be thought about, or to cause, or to be a part, without in any way undergoing alteration.

246. Relations of continuity are further discussed in the Third Draft of the Theory of Categories, below.
247. Plerose and Teleiose are two fundamental concepts which Brentano has introduced in his treatment of the continuum. See *Philosophische Untersuchungen zu Raum, Zeit und Kontinuum.*
248. The remainder of paragraph 10 is taken from a dictation, *"Ontologische Fragen,"* dated 30 September 1908.
249. This critique is further developed in *The True and the Evident.*
250. The relevance of this observation to the general topic of the essay is this: if a thing can be apprehended in different degrees of clarity, then it is something which may be said, in some sense or other, to have parts, and to the extent that it is a thing having parts it is something relative. Hence the clear apprehension of any *ens reale* also involves its relativity.
251. Paragraphs 11 through 13 are taken from a dictation dated 16 December 1915.
252. Thus it is a mistake to suppose that relative determinations can be acquired or lost without there being any real alteration in the subject.
253. If I know that a certain thing is one meter long and another person knows only that it is more than a half a meter long, then his idea of the thing is less determinate than mine.
254. This section is from a dictation, *"Zur Metaphysik,"* dated 2 February 1916.
255. In this section a clear and illuminating idea is needlessly coupled with one that is questionable and is thus put in an unfortunate light. The clear and illuminating idea is the proof that a substance can be a relativum. Any collective of substances would be an example: as a collective of *substances* it is itself substantial; but as a *collective* it is something relative for it is a thing having parts.

    But it is more questionable to add, as Brentano does, that in the case of similarity between *A* and *B* the subject of the relative determination is neither *A* nor *B* separately but is rather the pair consisting of the two things *A* and *B* together. The point of the observation was to refute the thesis according to which a subject may lose a relative determination without itself altering in any way. But in order to refute this thesis, one needs only to appeal to the distinction between a strict relative determination and the *denominatio extrinseca* which is frequently associated with it. And Brentano had done this in the previous section and goes into the matter more thoroughly, below, in the First and Third Drafts of the Theory of Categories. Compare also *Psychology from an Empirical Standpoint,* pp. 271ff.
256. It should be observed that strictly two different subdivisions are involved here. One of them divides comparisons into those wherein the terminus is the object of an individual idea and those wherein it is the object of a general idea. The other divides comparisons into those wherein the terminus is simply thought of and those wherein it is affirmed as being present, past or future. Naturally one could also think of the terminus *in individuo* without believing that there is such a thing.
257. The existence of a thing can never be known to us *a priori.* But these comparative judgments can be evident *a priori* since they do not imply the existence of the terminus.
258. In counting, one must distinguish things and hence compare them.
259. Compare the discussion of the evidence of comparative judgments in *Vom sinnlichen und noetischen Bewusstsein,* pp. 28 and 31ff. The remarks at the end of the paragraph are directed against Meinong's theory of "evident surmises."
260. According to Brentano, those objects of sensation which are neither sounds nor

colors belong to a single unitary species, despite the fact that they may differ greatly from each other. From the standpoint of an exact descriptive psychology, there are no more than three senses. Compare *Vom sinnlichen und noetischen Bewusstsein,* pp. 61ff., and the second edition of the *Untersuchungen zur Sinnespsychologie,* Part Two, essay 2 ("The Number of Senses").

261. The sensuous pleasure that is involved in musical enjoyment always has a sensation of the third sense as its object; this sensation is bound up with the hearing of certain combinations of sounds. Compare *Vom sinnlichen und noetischen Bewusstsein,* p. 80, and the *Untersuchungen zur Sinnespsychologie.*
262. What has been said may be illustrated by the process that takes place when one distinguished a triangle from a circle. The triangle and the circle are affirmed to exist. Then it becomes apodictically evident that what is a triangle as such cannot also be a circle. Thereupon the triangle which has been affirmed to exist becomes such that the predicate, being a circle, is denied of it.
263. *Being greater than* and *being smaller than* are commonly cited as instances of comparative determinations. But this is incorrect, for "greater than" tells us that something contains a part which has the same size as the terminus. Therefore *being greater than* is a real predicate [*ein reales Prädikat*], but *being smaller than* is not. For *to have a part* is a real determination, but *to be a part* is not. A thing cannot remain wholly the same if it ceases to have a part, but it can remain wholly the same if it ceases to be a part. If one supposes that the proposition "*A* is smaller than *B*" ascribes a real predicate to A, then one must face certain absurd consequences. Consider a thing that is one meter long; then it is smaller than a thing that is two meters long, and smaller than a thing that is threee meters long, and so on *ad infinitum.* But this would mean that there are an infinite number of discrete positive predicates. One may try to escape this consequence by saying that one is concerned here only with a certain hypothetical assertion: "If in addition to *A* there is also something that is two meters long, then *A* is the smaller." But this leads also to absurdity. It would imply that if a thing which is longer than *A* should come into being anywhere, then *A* acquires a real predicate without itself changing in any way. But we escape both absurdities, if we recognize that *being smaller than* is not a real determination. It is related to *being larger than* in the way in which a contemplated object is related to a thinker and in the way in which *causing* is related to *being affected.*
264. One should note that a comparison made prior to the abstraction is something other than that which is made when the newly acquired concept is involved in the comparison. But the former case does contain a denial; this negative feature is making a sensuous distinction which is prior to all abstracting – it is a matter of denying something of something [*ein Absprechen*], and this is a sensible rather than a conceptual idea. An intuition [*eine Anschauung*] becomes clearer to the extent that it involves more such negations. Hence it is necessary to correct the traditional view according to which sensible intuition, to the extent that it is a judgment, can only be a positive judgment. Compare *Vom sinnlichen und noetischen Bewusstsein,* pp. 27ff.
265. Geometers adopt the fiction that the contiguous angle of the larger circle can be said to be the same as that of the smaller.
266. Brentano is here concerned with the number of points of the sides. Modern set theory treats these as though they were all the same. But Brentano realizes that in considering the "set of points" one must take into account differences of *plerosis.*
267. As has already been noted, Brentano is making conscious use of a fiction when he

speaks here of a color continuum in which nuances of violet appear as infinitesimal, strict boundaries.

268. Compare Anton Marty, *"Über die Ähnlichkeit," Gesammelte Schriften* (Halle: Max Niemeyer, 1916-1929), vol. II, part two, p. 107.
269. This essay has already been published as section 39 of the *Versuch über die Erkenntnis,* but it would seem to be indispensable in the present context. Paragraphs 1 and 4 are taken from a dictation entitled, "Von der wirkende Ursache," which was begun on January 20, 1914; the two selections that follow are also taken from this dictation.
270. Compare the first essay in the *Versuch über die Erkenntnis.*
271. Every judgment includes the idea of the thing that is judged about. But we can also have the idea without making the judgment. Here we have a case of one-sided detachability and so this is why Brentano calls the judgment an "accident of the idea" or a "secondary accident." It can also happen that two ideas of one and the same object can be given in consciousness at the same time, one of them causing the judgment and the other included in the judgment; the former will then be an efficient cause and the latter the subject of an accident.
272. See *The Origin of our Knowledge of Right and Wrong.*
273. When Brentano here speaks of transformations from one opposite to another, he is referring to such cases as these: a cold thing becoming warm; a red thing becoming blue; a round thing becoming angular; a thing at rest being moved; a thing that is here becoming a thing that is there. "Opposition" is here taken in the sense of positive opposition as distinguished from contradictory opposition. Such opposition has to do with specific determinations that exclude each other and are thus such that they cannot both hold of the same individual at the same time and in the same plerosis of this point of time. A white thing cannot also be a red thing at the same time and in the same place; a body cannot be at the same time both here and there. But a thing having one of these determinations can come to have the other and then it will lose the former determination. And this is transformation from one opposite to another. But simple increment [*Zuwachs*] is quite different. Something can become a thing that is seeing without ceasing to be a thing that is hearing. Even in the case where the end of the seeing falls together with the beginning of the seeing we do not have one thing being transformed into another.
274. The creative activity of God does not presuppose a subject that is acted upon. It should be emphasized that the following questions require further study. Are the four cases cited all elementary cases of intuitive causality? Or does one or more of them require further analysis before it can provide us with a source of the concept causing? And are there still other cases in which causation can be immediately grasped?
275. This discussion is resumed in The Third Draft of the Theory of Categories, below.
276. Taken from a dictation entitled "Von der wirkenden Ursache," section, 40ff.
277. "Co-temporality" [*Gleichzeitigkeit*] is to be here taken in the sense of "persisting together." Brentano remarks in an earlier passage in this somewhat fragmentary dictation that, given this sense of co-temporality, an indirect effect may be co-temporal with an indirect cause. Otherwise a more of less complex inference could never become evident: the conclusion is seen to follow from the premise that immediately precedes, which in turn is seen to follow from the prior premise. A similar situation obtains in the case of complex determinations of the will.
278. Concerning this use of "opposition" and "transformation," see note 273 above.
279. The remainder of the paragraph has been added by the editor. Brentano observes at a later point in the dictation: "The opposition which underlies the transformation and

which co-determines the kind of result that will be produced performs this function, not in the manner of the causing thing, but, as one might say, in that of the thing that is being affected and continuously altered. We can speak of the continuous coincidence of temporal boundaries here, for this is the only sense in which opposites can be said to exist in a given thing at the same time."

280. If a conscious state, say an act of seeing, is to persist through a period of time, then the process which is the efficient principle of the conscious state must also persist through that time. Brentano puts this fact by saying that all conscious states have the character of undergoings and are thus passions. In the physical sphere it is also impossible for the process of causation to be momentary – that is to say, it cannot begin and end in the same moment, but must continue for some finite period of time. But it can happen that the effect persists longer than the causal activity. Thus one can speak in a certain sense of the tranquil persistence of the activity of causation. An example is this: one body has been put in motion as a result of the impact of another body and then, after the impact and in accordance with the law of inertia, the first body continues its motion with the same speed and in the same direction. Or one could say in a more precise sense that the causation persists without change if a moving body has been brought to rest as a consequence of an impact with another body and then remains in this condition. Generally speaking, when the causal process continues after the impulse has ceased, then the result is not a constant changeless state; rather the body which is affected undergoes a continued transformation as long as the causal activity continues. If there is to be a changeless state while the causal activity continues then this activity must be paralyzed by some counteractivity. This is illustrated by the body which continues to be affected by the force of gravity but is prevented by some support from falling. Without such counteraction, gravity would lead to a continuous alteration in the spatial position of the body.

281. As in the case of the previous section, one should beware of a possible confusion with respect to the co-temporality of cause and effect. Consider a process wherein the cause is gradually transforming the effect. If I think of the cause as it as at the beginning of the process and the effect as it is at the end, then I *could* say that the cause and effect are temporally separated. But that would not be to speak exactly. For if we analyze the process more closely, we see the following: both the thing that is exercising the causation and the thing that is being acted upon change from one moment to another; but at each moment of this process there is a state C of the causing thing and a state E of the thing being acted upon which are such that the cause C is co-temporal with the effect E.

282. Brentano is concerned in this paragraph with an "opposite," say a color, which persists unchanged. The expression "undisturbed rest," which occurs in the first sentence, refers to the case where a thing is unchanging with respect to quality. Consider a thing which is at rest at a certain place and which for a certain period of time remains the same with respect to color. If the thing is red then this red thing at any later moment during this period is conditioned as a result of the same red thing in the same place at the previous moments; but we cannot say that the later thing is acted upon or effected by the earlier thing, any more than we can say, in the case of a transformation from red to blue, that the red thing is an efficient cause of the blue thing. One can speak of a cause as a result of which something comes into being (see paragraph 3); and similarly one can speak of a cause as a result of which something persists. Where one opposite in transformed into another, the two opposites can be co-temporal only in that the temporal point at which one ends is the same as the

temporal point at which the other ends. One must therefore distinguish co-temporality in the sense of such temporal contact with co-temporality in the sense of persisting together. It is in order to make this distinction that Brentano refers to the case where the acceptance of the conclusion is caused by the acceptance of the premises.

283. Brentano is here concerned with absolute temporal species. Every moment is specifically different from every past moment and every future moment, but we have no intuitive ideas of these absolute temporal differences. Compare *Vom sinnlichen und noetischen Bewusstsein,* p. 121, and *Philosophische Untersuchungen zu Raum, Zeit, und Kontinuum.*
284. This point is further elaborated in the following section.
285. According to Brentano, the immediately necessary divine principle is not an unchanging being but a necessary process. Compare *Vom Dasein Gottes,* pp. 457ff.
286. One should add: the absence of immediate necessity *requires* mediate necessity. Brentano is here replying to an objection he has not explicitly formulated. The objection is this: "The fact that all the things that there are agree with respect to their absolute temporal determination is something that is self-evident and requires no explanation." Brentano answers this way: There can be no affirmative self-evident judgment with respect to things which are not themselves objects of self-evident judgments. The negative judgment, "There cannot be two things which are co-temporal but have different absolute temporal determinations," *is* self-evident. But what requires explanation is the affirmative judgment, "There *are* now two such things [which are co-temporal and have the same absolute temporal dimensions]." If these things are not immediately necessary, then they must be caused, and therefore they must be caused with respect to each of their determinations, and hence also with respect to their absolute temporal determinations as well as their substantial determinations.
287. Here, too, Brentano is replying to an implicit objection. We may put the objection this way: "If the divine activity did not cease with the act of creation, but continues to act upon things through every moment, why does it require any secondary causes?" Brentano's answer is that, from the fact that a cause is co-temporal with its effect, it does not follow that it is an immediate cause of the effect.
288. This is also taken from the dictation, "On the Efficient Cause."
289. Brentano cites as an example, "the collision of elastic bodies." Perhaps the following (fictitious) example is even more intuitive. Consider a red thing in direct spatial contact with a yellow thing. The effect of this contact leads to a continuous color-change in each: the red thing gradually becomes blue as a result of infinitesimal nuances of violet; and the yellow thing gradually becomes red as a result of infinitesimal nuances of orange. (For the purpose of the example, we think of these nuances as intermediate colors.) To the extent that each of these things undergoes such a transformation, Brentano calls it a thing that is undergoing a change [*ein leidendes*]. See the citation in note 279. (The present sense of "undergoing" [*Leiden*] is not that which it has elsewhere in the statement of the theory of categories. For elsewhere Brentano refers to all thinking as an "undergoing." And so in those cases, he applies the term to instances of positive increment or increase [*Zuwachs*]. But here "undergoing" refers to transformation.) In the case of such transformation, as has been noted, the species which falls away is in temporal contact with the species which is acquired – the one, as ending and thus prior, is in contact with the other, as beginning and thus subsequent. This also holds of the stages of the thing that was initially red and of the stages of the thing that was initially yellow. Now these two things are in

continuous interaction with each other, the result of which is their mutual change of color. Consider any particular phase of this process – for example, that wherein the first thing has the violet-nuance V^1 and the second thing the orange-nuance O^1. Then they are co-temporal with each other in the sense of persisting for a time together, and not in the sense of temporal contact between an earlier thing and a later thing. But each stands also in the latter type of relation with the nuance from which it had just been transformed. Thus V^1 and V^2 are related as earlier and later, and so, too, are O^1 and O^2.

290. In the next paragraph, a fictional case is cited as an example: two completely inelastic bodies of the same magnitude collide with each other and thus come to rest. At the moment of collision an effect of finite magnitude is produced (for, however slowly they may have been moving, the things were separated by a finite interval from the state of absolute rest). One may object: isn't the production of such a finite quantity in a single moment inconsistent with the principle according to which cause and effect must persist together through some period of time? Brentano does not formulate this objection, although he replies to it in saying: "But then the two causing things must have existed previously, either unchanging or in a state of infinitesimal change, and the two things being acted upon must continue to exist subsequently, either unchanging or in infinitesimal change." And so even here the two bodies, to the extent that they collide and act upon each other, persist together in time and are thus not related merely by temporal contact. But the final phase of the motion of each body is in temporal contact with the first phase of its being at rest; and so one can say that motion applies to it as ending and that rest applies to it as beginning. The things affected directly are the outer parts of the colliding bodies – hence those parts which come into contact. The other parts are affected indirectly. They all come to rest in the same moment.

291. The concern here is with passive affections or *passiones* – with those cases in which the effect continues only so long as the cause persists and indeed, with those cases which do not involve a further result [*Werk*]. (See the discussion in the Third Draft of the Theory of Categories.) Any act of consciousness is an example. Thus if a certain idea is produced in a certain thinking thing, then the causation which produces this cannot be merely momentary. If the cause ceased to act at the moment at which it began to act, then the thinking thing would have the idea for only an instant, which is absurd. The thinking must last a finite time, however brief, and therefore the causal activity must also last during this time. Wherever something new is thus produced, as distinguished from those cases where there is a transformation, then an effect of some finite magnitude is produced at each moment. If a soul begins to think some general concept, then there is already an effect of some finite magnitude, for no preceding condition is thinkable which would be distinguished only infinitesimally from this. And if the soul had first just had an idea and then went on to accept or affirm it, then in this moment another effect of some finite magnitude is brought about. What shall we say now of the case, for example, where hearing increases continuously in intensity? It is clear that at the moment at which the hearing begins there is an effect of some finite magnitude. But it is also the case that in every succeeding moment, some such finite effect will be produced. For there will be no enduring effect upon the hearing unless the causal process continues, and this process will affect the entire hearing at any moment – even if the result of the continuous increase intensity differs only infinitesimally from one moment to another.

292. Brentano is here speaking of causation which is not transforming but rather produces

something that is new. Here, then, we have an undergoing or passive affection [*Leiden*] in a narrow sense of the word. But the case is supposed to differ from that considered under (c) in that: magnitude has been produced. We could imagine this example: the idea of a triangle is gradually awakened in a certain soul by starting from the apex of the triangle. In each moment the effect would be infinitely small and would gradually grow to a finite magnitude.

293. See note 283, and the *Philosophische Untersuchungen zu Raum, Zeit, und Kontinuum.* Brentano does not mean to say here that we have no concept at all of an absolute temporal determination. But he says that our concept is completely general; it is identical with the concept of a *something*, a *thing*, an *ens reale*. Specific temporal differences as such are given to us only in the sense of temporal intervals and in the sense of earlier and later. But these do not yield complete determinations. Thus if we say that one event is separated from a later event by an hour, then this description would fit countless pairs of events which differ from each other with respect to their absolute temporal determinations. Everything that there is has the same temporal species; otherwise certain things that there are would be temporally separated from other things that there are. Hence all things undergo temporal change in complete uniformity, as Brentano notes later on in this section. This is a basic point of the theory of continuity and of that of the temporal continuum. To elucidate it further, I quote from a dictation of 4 June 1907, having the title "Can One Speak of a Velocity of Time?" Brentano insists that the question must be answered affirmatively. He writes:

> We may speak of a thing enduring for a longer time or for a shorter time. And this tells us that during the unchanging persistence of the thing time itself has changed to a greater or to a lesser degree. Consider three things *A*, *B* and *C* which exist through a certain period of time *t*. *A* persists without change through this period of time *t; B* continually changes; and *C* also continually changes but the change is double the change that occurs in *B*. It is clear, not only that the changes in *B* are related to those in *C* with respect to speed, but also that both sets of changes are related to the period of time *t* with respect to speed, just as they are all related to the simple duration where the speed of change is zero. If I think of the changes in *B* and *C*, not as being uniform but as taking place more and more slowly, then the speed of each would approach this null point in infinity. Or if I think of the changes as continually increasing, so that they will reach any degree we choose, then their distinction from the state of complete rest will become indefinitely great. Any change that is thus distinct from the state of absolute rest will have some definite degree of speed.
>
> Now time is also distinguished from the state of rest in that it is changing; hence if it exists then it, too, must be represented as having a certain degree of difference from the state of absolute rest. Hence it must be that, if we think of the change of *B* as becoming more and more slow, *ad infinitum*, or as becoming more and more fast, *ad infinitum*, then in some one of those moments it will undergo the same degree of change as does time itself. If we think of this degree of change as remaining constant, then *B* at the beginning of the period of time during which the change takes place will differ from *B* at the end of this time in the same degree in which the beginning point of the period of time is separated from the end point. Every slow change of *B* would be slower than the process of time and every fast change of *B* would be faster than the process of time. Now everyone knows that velocity is a function of the amount of change that has been completed in a given time. But time itself changes from moment to moment and the more so the longer it lasts. And it is certain that, since time itself undergoes a certain amount of change then this amount of change also takes place in time. Therefore, it, too, has a certain velocity; this is as certain as it is that change as change is different from rest. But since the rate of this velocity is always the same, we tend to think it isn't there and hence to think that there is no speed of such change. The relation of the amount of change that time undergoes to the time

in which that change is undergone is naturally always that of equality; just as we may say of congruent triangles having a side in common that they have three equal sides.

294. Concerning the impossibility of absolute chance, compare *Vom Dasein Gottes*, pp. 447ff., and *Versuch über die Erkenntnis*.

295. Causation, when it is not an act of creation, involves two things or one thing with two accidents. To the extent that the things are two they are distinguished from each other in some way and in this sense they are "opposites". Brentano here says that causation requires that one thing be in contact with another. This is clear in the case of physical things, for there can be no action at a distance. But what if the things are not spatial and therefore cannot be said to occupy a place in the strict sense of this expression? Here we must distinguish two cases. First, there is the case where, if the causing is to begin, it is essential only that both things exist: they begin to act upon each other from the moment that they co-exist. The second case is the one where certain further conditions are necessary if the two things may be said to "stand in contact" provided the two things *do* exist. In the second case, the contact is made only when the requisite conditions are brought about.

Brentano's remark that the opposition between two interacting things may be "wholly or partly neutralized" is illustrated by the collision of two balls or by the fall in heat which is necessary if a certain physical process is to be continued.

296. The expression "combined with mere potentiality" actually comes to the same thing as: "could be otherwise; i.e., contingent".

297. This first sketch of the theory of categories, which was begun on 2 March 1916, does not have a title. It is concerned primarily with the theory of categories and comprises forty-three consecutively numbered paragraphs, as though it were a single unitary whole. But it contains two different sketches of the same subject. I have separated these two sketches into separate chapters and left out a few passages that would seem to be more suitable in other contexts. The two chapters are (I) "The First Draft of the New Theory of Categories" and (II) "The Second Draft of the Theory of Categories". These are followed by the further chapter (III) "The Third Draft of the Theory of Categories", which was a dictation begun on the 29th of March 1916.

These three drafts of the theory of categories bring more and more light upon all the problems in this area that Brentano had investigated. They mark a considerable advance over the preliminary studies reproduced in this volume. In particular, Brentano here demonstrates that what is sensibly qualitative is accidental, and that the only substantial attributes of bodies are those of place and time. He also shows, however, that the physical body, in contradistinction to the geometric body, is not a mere continuum of places, but something qualitative that fills a particular place. In sense perception we apprehend what is spatial and qualitative: we apprehend absolute specific differences of place and quality and indeed entire continua of qualities of discrete species. And we have reason to assume that the bodies which exist in reality vary in respect of place and quality, but we have no reason to assume that they are colored, sonorous, etc.

This work is certainly the most important extension and continuation of the Aristotelian theory of Categories. After completing it, Brentano was vouchsafed only one more year of fruitful labor, during which he continued te refine the doctrine. One of his last corrections – a very important one – was his demonstration that our sense perceptions lack individual determination; in other words, we intuit countless differences of distance and direction, but no specific absolute differences of place. On this

point, as on others, Aristotle came close to the truth, but did not achieve full clarity because he failed to recognize the substantial character of what is spatial as such. Compare *Psychology from an Empirical Standpoint,* pp. 311-320, and *Vom sinnlichen und noetischen Bewusstsein,* pp. 114ff.

298. On the distinction between *modus rectus* and *modus obliquus,* compare *Psychology from an Empirical Standpoint,* pp. 315ff., and *Vom sinnlichen und noetischen Bewusstsein,* pp. 37ff. On the temporal modes of presentation, compare *Vom sinnlichen und noetischen Bewusstsein,* pp. 38ff., and *Philosophische Untrsuchungen zu Raum, Zeit und Kontinuum.*
299. Brentano does not mean to deny that occasionally a statement is confined to a single word, as when on hearing a certain single a man cries "Fire!" or when the leader of procession orders "Halt!". In such cases the single words function not as mere names but as statements and serve to express feelings.
300. On the theory of meaning, compare Anton Marty, *Untersuchungen zur Grundlegung der allgemeinen Grammatik und Sprachphilosophie,* also his *"Von den logisch nicht begründeten synsemantischen Zeichen"* in Otto Funke, *Grundfragen zur Bedeutungslehre, Englische Studien,* vols. 62 and 63.
301. Compare the first part of the Second Draft of the Theory of Categories.
302. On the structure of expressed thought compare *Psychology from an Empirical Standpoint,* pp. 291ff.
303. A possibility cannot be made an object of thought; it cannot be intuited, imagined, or conceived. Meinong denied that we can have presentations of the so-called judgments contents, but he did not go far enough, for he held that they can be objects of assumption, defining assumption [*Annahme*] as "a mental activity intermediate between presentation and judgment." (That assumptions in this sense are entirely fictive was shown by Marty. Compare his *Gesammelte Schriften,* vol. II/2, p. 103).
304. This formulation is not yet definitive, for "judging erroneously" is not a real predicate. When we say that someone is judging erroneously we mean only that he would be contradicted by someone judging with evidence. To clarify the statement "An *A* is possible" without resorting to fictions, one must say this: it expresses a judgment which is motivated by the idea of *A* and which, apodictically and with evidence, rejects apodictic evident rejectors of *A*.
305. To have the idea of a thing *lacking* a certain predicate is to think *in recto* of a person denying the predicate of the thing. On the so-called *negativa* compare *Psychology from an Empirical Standpoint,* pp. 295ff.; also O. Kraus, *"A ist A"* in *Wege und Abwege in der Philosophie* (Prague: I.G. Calve, 1934). pp. 103-113.
306. From this observation we can see where Brentano stands in the dispute over universals (compare part one, *passim*). He rejects realism (the doctrine of *universalia in rebus,* according to which universals are present in things, and every concrete thing is composed of abstract parts, e.g., a red ball of redness and spherical shape). He also rejects that form of conceptualism which would distinguish between concrete and abstract concepts. He holds that concrete terms signify general concepts. Abstracta are fictions. On the other hand, Brentano could be called a conceptualist in that he rejects the nominalistic thesis according to which we have no universal ideas. As we have noted, even our sensible intuitions, according to Brentano, lack complete individual determination.
307. The word "thing" is here used as a term for the most general of our concepts; it is not restricted to physical bodies.
308. Compare *The True and the Evident, passim.*

309. The parentheses have been inserted by the editor; actually the passage would fit better under (b). It does not correspond to Brentano's final views about the temporal modes. According to his final view only that which exists at the present time can be affirmed *in modo recto.* To hold something *A* to be past is to affirm something *B* in *modo recto* where *B* is held to be later than *A* and is thus thought *in modo temporali obliquo.*
310. I also qualify a person by a *denominatio extrinseca* when I say that his judgment is true but blind. This means that a person who makes an evident judgment about the same thing cannot contradict him. If the blind judgment is assertoric it can become false if its object is altered. I also qualify a thing by a *denominatio extrinseca* if I say the thing is valuable. I do not thereby ascribe a predicate to that thing; what I actually do is to judge, with respect to one who loves the thing, that he loves it correctly. (Compare below, Second Draft, paragraph 22.) If we say that the person loving the thing does so with a love that is characterized intrinsically as being correct, then we ascribe a real predicate to him; but if we say only that he loves it correctly but blindly, then once again we are concerned with a mere *denominatio extrinseca.* On the concept of an emotion being characterized intrinsically as being correct, see Brentano's *The Origin of our Knowledge of Right and Wrong.*
311. "Modified" is here used in the sense of qualified by an accident. After losing the accident the substance becomes a thing for itself [*ein Ding für sich*] which it was not before.
312. We have an instance of such identification when a mind is called a substance.
313. Two bodies that interpenetrate each other would be indistinguishable, and yet they are supposed to be two. If there are two bodies of equal shape and size and qualitatively the same, then they are distinguised from each other by their places, just as two thinking persons are by their selves [*durch ihr Ich*].
314. The absolute time-point of a future event gradually approaches the present, then is present, and then sinks gradually into the past.
315. The temporal determinations in question are relative to the present in the manner described in note 309 above.
316. These temporal determinations are transcendent *in specie;* but we have the general concept of that which is temporal in the absolute sense. This general concept is identical with the concept of thing. See *Vom sinnlichen und noetischen Bewusstsein,* p. 120.
317. The spatial determinations are those substantial determinations that individuate bodies. Not all substantial determinations individuate, but all individuating determinations are substantial. Substantial determinations of time, including those *in specie,* do not individuate because all things that there *are* have the same temporal determination. This is why a thing qualified only as a spatial continuum is possible; but a thing qualified only as a temporal continuum is not possible, for no *thing* can be indeterminate.
318. Here the subject of the predication is the *collective* that is involved. When we say of a collective that it has certain parts, then we are *not* concerned with a mere *denominatio extrinseca.*
319. When Brentano says that we have a "complicated copula," he means that the statement expresses more than one judgment.
320. Compare paragraph 8. If the cause of hearing were to cease to operate, then the hearing would cease completely. In this respect the hearing is to be distinguished from a motion, which in accordance with the law of inertia may outlast the force that impelled it.

321. According to Brentano, inner perception presents us with passive affection only in the four cases of causation cited earlier (in the discussion "On the Concept of Efficient Cause," in essay III, part Two).
322. Brentano also maintains that this is actually the case. Every contingent thing, as long as it exists, must be such that its substance is caused by a directly necessary principle, insofar as the substance of this thing is concerned.
323. That is to say, there could be no such replacement when the sustaining cause is God.
324. Brentano here uses "modify" to refer to the causation of an accident in a subject; so, too, in paragraph 8. Elsewhere Brentano uses the expression "modifying determination" to refer to a determination which, so to speak, cancels out its subject, as in "dethroned King," "counterfeit money," "alleged discovery."
325. In the way "*A* is thought of" tells us only "Someone is thinking of *A*."
326. If *A* were the only cause of *B*, and thus reguired no contributory cause, anyone who had a complete idea of *A* would know that *B* is its effect. This would be evident from the idea of *A*, not from the idea of "*A* as cause." *Being caused* is a real attribute, *causing* is not.
327. One efficient cause can conceivably be replaced by another, without changing the effect as such. But this cannot be said in the case of the boundary. The latter can remain unchanged only as long as *some* part or other, however small, of the continuum it bounds subsists unchanged.
328. But everything must be conceived as belonging to a temporal continuum. For there can be nothing that does not either begin, or continue, or end a duration or an infinitesimal process.
329. This discusion of the criterion is somewhat opague, and may be clarified as follows. The question is: How can we tell whether two accidents predicated of the same subject belong to one or two categories? In paragraph 19, Brentano asks whether the answer might be found by generalizing upon the proposition that blue and red are incompatible at the same place at the same time. This yields the following criterion: A single substance cannot simultaneously have two accidents of the same category. Then it would follow that any two accidents of the same substance must be assigned to different categories.

    However, in paragraph 20 Brentano raises the following objection to this criterion: We can see and hear at the same time, and there can be no doubt that seeing and hearing are two accidents because they are reciprocally separable. Indeed this is even true of the component parts of the act of seeing (which correspond to different parts of the thing seen). Yet we cannot say that the subject is present in different ways in the acts of seeing and hearing, let alone in the different parts of the act of seeing. Therefore the criterion cannot be right. One might attempt to uphold it by denying that several mental acts can be simultaneously present in the subject. But this is contrary to experience in so far as experience justifies us in inferring a multiplicity of acts from the fact of reciprocal separability. To be sure, it is true that a multiplicity of psychic relations may be given in one and the same mental act, without thereby affecting the unity of the act. But it is equally incontestable that the same self have a multiplicity of acts of thought – say, seeing, hearing, conceptual thinking – without thereby becoming a multiplicity, in the way in which a collective is a multiplicity (paragraphs 21 and 22). Marty had been led to deny this, on insufficient grounds, and this meant that he also had to deny the obvious fact that we can perceive how one act brings about another (paragraph 23). At the conclusion of paragraph 24, Brentano re-examines the principle of the incompatibility of different accidents

falling in the same category; he considers the principle of the incompatibility of different colors as a special case of this. But at this point he breaks off the discussion. He resumes it in paragraph 26 of the Second Draft of the Theory of Categories. He there affirms only a qualified version of the incompatibility principle, restricting it to accidents as are inherent properties, and holding that different passive affections are mutually compatible. (See also the Third Draft of the Theory of Categories, paragraph 14 and subsequently.)

This section is more easily understood in the light of the dictated text *Zur Metaphysik* dated 16 December 1915 (reproduced in paragraphs 27 through 31 as an addendum). This was dictated two months after the present text and is considerably clearer.

330. Brentano here refers to the continuum viewed as an indefinite plurality of boundaries.
331. A person who sees and hears simultaneously cannot be regarded as a plurality of sentient beings. In saying that the substance with its accidents is a "thing on its own," Brentano is contrasting it with a boundary.
332. Anton Marty, *Raum und Zeit* (Halle: May Niemeyer, 1916).
333. That which is hearing is by nature perceiving itself. Primary consciousness (e.g., of a sound) is inseparable from secondary consciousness (e.g., of hearing the sound): the act of hearing is constituted by both. Seeing is not a part of hearing, and comparing the two is a third act, a secondary accident of both.
334. Paragraph 24 requires additional comment. The discussion of the criterion of categorial unity was based on the proposition that the same substance cannot have two accidents belonging to the same category, but this proposition turned out to be highly problematic. There seems to be no *a priori* reason for saying that several accidents cannot belong to a substance in the same way, and hence to the same category. Nor does there seem to be any *a priori* reason for saying that all accidents of a subject must belong to the same category. Therefore the whole matter needs to be investigated more closely. But at this point Brentano turns to the principle according to which red and blue are incompatible at the same place. Is this proposition, he asks, really evident? At any rate, he observed, it cannot be based on experience for there is no red thing or blue thing. (But from Brentano's explanations given in part One one may gather that in his opinion this principle is evident *a priori*.) This is not to say, however, that it is impossible *to see* these two colors at the same place. Here he assumes that the objects of these perceptions are absolute attributes of place. For only under this assumption does it make sense to say that the same visual field with the same quality can be perceived in two ways. What is absurd is only that the same visual field filled with the same quality be perceived in two ways at the same time. On the other hand, it is not absurd to say that the same subject can simultaneously perceive two spatial continua of the same species but filled with different qualities. Then we would obviously be dealing with two perceptions: we could see the field filled with blue without seeing the one filled with red, and vice versa. But no one would go so far as to say that these two perceptions are accidents belonging to different categories. Since these accidents can also be simultaneous, the criterion proposed in paragraph 19 proves untenable. (The argument remains valid even if we assume, as Brentano did later, that we cannot perceive absolute places.)
335. Brentano here asserts that the copula is univocal in genuine predications; this assertion does not contradict the thought of the theory of categories, namely, that the predicate belongs to the subject in different ways (more accurately, that the subject can inhere in the predicate in different ways). In saying that the copula is univocal,

Brentano is thinking of predication as the synthetic function of judgment which remains the same no matter what the object of judgment may be. But the point about the categories is that the predicate is the accident, and the subject is the substance. What accounts for the ambiguity is that in the so-called natural predication, the substance is made subject of a predicative judgment.

336. With respect to the question whether the "is" in existential propositions has the same synsemantic function as that of the copula, Brentano wavers, because he has two conceptions of the structure of the predicative judgment, and he sometimes prefers one and he sometimes prefers the other. According to the one conception, a predicative judgment is a combination of an affirmation [*Anerkennen*] with a modifying affirmation [*Zuerkennen*]; and, in the case of negative predicative judgments, a combination of a rejection with a modifying rejection [*Absprechen*]. Affirmations [*Anerkennen*] and modifying affirmations [*Zuerkennen*] are accordingly primary differences of judgment, but they are both dependent upon simple thetic affirmation since they both include it. This theory of the so-called double judgment [*des Doppelurteils*] was accepted and developed by Marty (compare his *Untersuchen zur Grundlegung der allgemeinen Grammatik und Sprachphilosophie,* pp. 341 ff., also his *Gesammelte Schriften,* vol. II/1, pp. 227 ff. and 309 ff.). In Brentano's *Psychology,* pp. 281 ff., we find the second conception of the structure of the predicative judgment. According to the second conception, there is such a thing as an identifying idea or presentation, a synthesis which, as such, is not yet a predication – not yet an identifying belief. Where such an idea is the matter of an affirmative judgment, we have a predication. Hence, according to this theory, the modifying affirmation [*Zuerkennen*] does not strictly have an intrinsic difference characteristic of the act of judging; the synthesizing function is primarily at the level of presentation [Vorstellung] and only secondarily at the level of judgment. It is only from the standpoint of this second theory that the "is" in genuine predications can be sais to have the sense function as the "is" in the existential proposition.

Another question is whether *Zusprechen* is to be interpreted as an affirmation of what is identified presentationally [*ein Anerkennen von vorstellend Identifiziertem*], and whether an *Absprechen* (the case where a predicate is denied of the subject, as in "*S* is not *P*") is to be interpreted as an affirmation of what is differentiated presentationally. Such interpretations would hardly be tenable and, if I have understood Brentano correctly, they are not to be attributed to him. It was his opinion that *Absprechen* is to be interpreted as a mode of judgment. Concerning the interpretation of "*S* is *P*," compare the editor's note in Band II, of the *Psychologie,* pp. 299 ff. [This note does not appear in the English translation.]

337. From the dictated text *Zur Metaphysik* (16 December 1915). See the remark at the end of note 329.

338. Brentano holds that two inherent qualities of the same species (e.g., blue and red) are incompatible; therefore, he would say that, if both were seen at the same place, we would simply have a proof of the deceptive character of sense perception.

339. The point is this: it is a psychological fact that we cannot accept and reject the same thing at the same time; one might attempt to explain this fact by reference to a law to the effect that accidents belonging to the same category are incompatible; he would have to maintain that, because acceptance and rejection of different things are compatible, such acceptance and rejection belong to different categories, which is certainly absurd.

340. Compare Bretano's criticism of Marty in paragraph 23.

341. The final sentence in this paragraph has been inserted by the editor.
342. Marty did not intend to deny the distinction between substance and accident; his view was that the same subject cannot have a multiplicity of accidents. This is why Brentano says that Marty's doctrine merely *reminds* him of the view according to which there is no distinction whatever between substantial and accidental determinations. Marty denies merely that accidents are separable from one another [*die gegenseitige Ablösbarkeit der Akzidentien von einander*]. But Descartes had held that the substance cannot be separated from its accidents. According to him, there is no mind that is not thinking, and no place without bodies. So far as bodies are concerned, Brentano shared Descartes' view for a long time, holding that there is nothing qualitative without place and no place that is not qualitatively filled. By means of either one of these two concepts one could think of that which is physical. Thus, according to this view, if the quality falls away then so, too, does the place itself. There would remain no subject which could be now the bearer of this quality and now the bearer of that. It was not until he recognized the possibility of unqualified place (see paragraph 17 of The Second Draft of the Theory of Categories) that Brentano was able to apply the distinction between subject and accident to what is physical.
343. Because they are identical only in respect of the subject.
344. "Is round," "is red," "is thinking," are examples of genuine predications; "is past," "is believed," "is impossible," are examples of spurious ones.
345. The verb performs the function of the copula explicity when we say "is freezing," but only implicitly when we say "freezes."
346. Nor is the infinitve a verb. On the meaning of this grammatical term, compare A. Marty and O. Funke, *Satz und Wort* (Reichenberg, 1925), pp. 44, 46, 48 and 53.
347. According to Brentano, an idea or presentation [*Vorstellung*] with no temporal modus is as impossible as judgment without quality.
348. The function of the verb is to expand a denomination [*ein Nennen*] into statement [*Aussage*], i.e., the expression of a judgment.
349. The widespread belief that every so-called grammatical category has its psychological counterpart was most vigorously attacked by Marty. His works on linguistic philosophy deserve far more recognition that they have so far received. His published writings, along with his posthumous papers edited by O. Funke, include the most exact analyses of the semantic function of verbal expression. Because Marty took into account the results of Brentano's investigations into descriptive psychology, his writings are superior not only to those of Wundt and Steinthal, but also to those of the "idealistic" tendency in contemporary linguistic philosophy. It is true, however, that Marty's distinction between autosystemantic and synsemantic linguistic signs does not coincide with the one drawn by Brentano; though Marty recognized that abstracta and intentional objects are linguistic fictions, he failed to see that the same is true of the so-called contents of judgment.
350. Brentano does not mean to say here that the primary object in the statement "*A* is" is the *idea* of *A*: the primary object is rather *A* itself. But since *A* is affirmed or accepted, it is naturally thought of – and here in the *modus praesens*. This has no doubt been overlooked by those who deny that an *Impersonalium* such as "It is raining" expresses a *simple* assertoric judgment, arguing that it refers to the rain falling *hic et nunc*. In fact, the *hic* is not asserted explicitly, and there is no justification for regarding it as predicate; as for the *nunc*, it is contained in the fact that the affirmation is in the *modus praesens*.

351. To bring out the actual subject and predicate in the latter case, we must reword the statement and say, "The one is a so-and-so hater and the other is a so-and-so lover," where "hater" and "lover" are genuine predicates.
352. "Redness" is synsemantic, "thing-that-has-redness" would be a genuine name, synonymous with "red thing."
353. "Dislodged by something," is not a *denominatio extrinseca;* but the specification of that something, as in "dislodged by something that is a hunter," would be a *denominatio extrinseca.*
354. This *ens per accidens* must be distinguished from the truly accidental predicate, such as "colored" in "A thing is colored," or "thinking" in "A person is thinking."
355. Such habits are indeed unconscious, but they are not unconscious acts of thought or of will and they have no intentional objects. They are properties of the soul which are transcendent to us, and which make a certain consciousness necessary under suitable conditions. In this sense, Freud is right when he says that *psychical* and *conscious* are different concepts, but he is wrong when he assumes that the unconscious actually involves thinking, desiring, inferring, and the like. The correct intermediate position was defended by Brentano as early as 1874 in the *Psychologie vom empirischen Standpunkt.*
356. A transformation need not be infinitesimal; it can be sudden. Thus a place filled with blue is suddenly transformed into one filled with red, for there is no intermediate simple color between blue and red.
357. The thesis, according to which two determinations belonging to the same category cannot be predicated of the same subject, is here maintained only for inherencies, and not for all accidents.
358. Every accident contains the substance, and to this extent is something relative.
359. Even when these relative accidental determinations are thought of in extreme generality there remains something that is relative. Although we cannot think of things in terms of their absolute time species, nevertheless whatever we think of, is thought of as being temporally separate from something else.
360. Place [*Ort*] as such is substance; motion is secondarily continuous and possible only where there is a-thing-that-fills-a-place. This is why motion is classified as accidental.
361. Thinking does lead to the formation of intellectual dispositions, but such thinking is not *transformed* into dispositions. Indeed, thinking can go on after the disposition has been produced; whereas that from which something has been transformed ceases to exist when the new thing begins to exist. The two can co-exist only in an instant where they have opposing plerosis; they cannot co-exist for any length of time.
362. The thought is this: because these examples are of unitary acts, that which is combined in them cannot belong to the substance in different ways. But what is in question here is only primary accidents, not the distinction between accidents which contain the subject directly and those which contain it indirectly. The latter, as shown in the following paragraph, are not predicated in the same sense.
363. The first relation is that of a body in motion to the cause of its motion; the next two are relations of the body to the place it successively occupies and leaves, and thus becomes transformed from a-thing-that-exists-here [*einem Hierseienden*] to a-thing-that-exists-there [*ein Dortseiendes*].
364. This is not to deny that the inherencies have no relative character whatsoever. The very fact that they can be transformed into one another implies that they are relative. Therefore the investigation of inherencies should be resumed here; until now only the *relativa* in the category of passive affections have been dealt with. The classification

of relative accidents is now considered. But this is done in the negative rather than the positive sense; what is discussed in greater detail is comparative determinations insofar as they contain *denominationes extrinsecae*. Nor does paragraph 13 contribute anything positive to the classification of relative accidents. For insofar as conscious states stand in a relation of continuity to one another, they yield, as is stated explicity in paragraph 13, no particular mode of predication. Where, then, are the other relative accidents to be found? Obviously in the class of inherencies. These include, in addition to the transformation relations already referred to, still other relatives. Examples are those referring to directional connections and differences in velocity which were previously discussed under the heading of relative accidents. It must, however, be recalled that the relations of continuity belong to the domain of accidents only insofar as the secondarily continuous is in question.

365. Ever since Aristotle, theorists of relations have tended to view relative determinations as having a lesser being [*ein minderes Sein*] than absolute ones; some even say that although relations actually exist, they are not real, thereby directly contradicting themselves. Moreover they characterize relations as possible objects of thought, whereas this can correctly be said of relatives, not of relations. So far as relatives having "less being" is concerned, it should be noted that even God could be called a relative to the extent that he thinks and to the extent that he stands in a temporal relation to himself. Where contingent things are in question, relatives are found among substances as well as accidents. The contigency of substances shows that they are relative in the sense of being continually re-produced by the directly necessary principle.

366. The absolute place of a body would be a substantial attribute *in specie specialissima* if it were within our power to grasp it. In actual fact we have to content ourselves with relative attributes of place, which specify a given body's distance from others in terms of magnitude and direction. Even these relative attributes are substantial; but they are universal since countless pairs of bodies can be separated from each other in the same ways. In the case of such a relation between two bodies, whatever we state incidentally about the relatum is of course a *denominatio extrinseca* of the referent. The same is true of attributes of time. The absolute point of time is transcendent to us; what is *a priori* certain is that such a point must be specifically the same for all things that exist. Therefore, to say that one thing has the same absolute time attribute as another is to specify an attribute at once relative and substantial. This is also the case when we say of an event that ts occurred a year ago. This attribute serves as a surrogate for the absolute temporal attribute which is transcendent to us and which the event had had (to be sure, the event does not now *have* the attribute). The attribute was then a substantial attribute of the event. If, in referring to the past event, we should also refer to some present event, such as the word being at peace, and if we were then to say that the past event was a year earlier than the present event, then we would be citing a *denominatio extrinseca* of the past event.

367. Here Brentano still tacitly presupposes that our sensory intuitions are individually determinate; he later gives this up (see note 297). Brentano here says: "Inner perception shows us the substance as contained in its psychical accidents and only in accord with the most general concept of substance." It would have been more nearly accurate if he had said that it shows us, however indeterminately, something contained as *subject* in its psychical accidents; see notes 187 and 189.

368. Space [*der Raum*] is substance which is contingent and not directly necessary. Not all possible places can be actual together; and since the notion of an infinite space *in actu*

is absurd, actualization of any definite part of potential space must have a cause.

369. If a red ball could become blue, this change would be accidental. Were the ball to change places by moving, the change would be substantial. Being at rest is substantial *qua* primary place-continuum, but it is accidental *qua* secondary continuum, i.e., *qua* something red that fills this space. In respect of its color, that portion of space can be called a substance enriched by an accident. If we think of the color taken away without replacement, then the place-continuum would be a thing with no qualities; it would not be contained as subject in any accident. If this thing itself were annihilated, what would be left? Some would say; an empty space having the same shape as the ball, but no longer to be termed a thing. But Brentano would say that this is a contradiction in terms. For nothing whatever is left; there is no entity corresponding to "empty space," but one adopts the fiction that the expression does designate something. "Empty space," when it is used to deny something (namely, the presence of a quality or of a thing) is not a name; it is equivalent to "a space that could be occupied by a thing of determinate spatial position, magnitude and shape." But to say that such possibility exists is not to express an affirmative judgment; it is merely to contradict one who would maintain the absurdity of a spatial thing so characterized.
370. Time is transcendent in the same sense as place. We can form no genuine concept of what intrinsically distinguishes one place from another, i.e., of absolute species of place as such. The same is true of the absolute species of time. But we certainly understand what is meant by place in general, and so we are capable of certain axiomatic insights. We also understand what is meant by temporal in general.
371. As noted earlier, Aristotle denies that the same individual can have two determinations of the same category at the same time. Can an individual, then, have two determinations belonging to different categories? According to Aristotle, the answer is no since determinations in different categories do not fall under the same concept of being; he would say that things which are not beings in the same sense cannot form real unities. But, one will object, did not Aristotle hold that a substance together with its accidents is *one* thing? Brentano's answer is that, according to Aristotle, such a substance is a kind of collective composed of a being in the proper sense and of a being in the improper sense.
372. "Red-thing [*Rotes*]" comes to the same as "thing which is qualitative and colored red [*Rotes-Farbiges-Qualitatives*]."
373. A physical body is a continuum of places, and place is something substantial.
374. That is, a substance belonging to a continuum cannot be correctly predicated of an ultimate, self-subsistent substance, nor can a substance produced by another be predicated of the directly necessary substance. The former error is committed by materialists who hold that the soul is extended, the latter by pantheists who identify God with the world.
375. Aristotle failed to see this. According to him, an extended accident can never be predicated of an ultimate substance, and for this reason, he postulated a corporeal subject for sensations. Compare *Vom Dasein Gottes,* p. 425.
376. In the physical domain, the qualities which are transcendent to us *in genere* and *in species* would be accidents and indeed inherencies.
377. Thinking a general concept is an example of a primary accident; any infinitesimal part of a colored surface is an example of a secondary accident.
378. Thus it is possible for one cause to be replaced by another. Passive substances do not differ in this because all of them are kept in being by the same cause, namely, God.
379. For example, this place is a substantial boundary, this blue point is an accidental one.

380. The dictated text this is followed by this observation; "and so one arrives at a comparative relation to an actual thing whose idea *in recto* involves the idea of that which it thinks of *in obliquo*." I have omitted this observation because it is confusing and not strictly relevant. The relation referred to is not comparative but intentional. Brentano was probably thinking of cases where we compare two things without accepting or affirming either of them. (See paragraph 3 of The Third Draft of the Theory of Categories.) We know that actually there is nothing red and nothing purple, yet we say that red is similar to purple. Here neither the relatum nor the referent seem to be affirmed or accepted: of what, then, is the relative attribute predicated? It is predicated of the person who thinks of these two colors and thinks of them as similar. This person is himself the subject (but also the terminus) of the comparison. Possibly we could also say this: when we make such comparisons we do not affirm that a subject has a relative attribute, we rather make an *a priori* judgment to the effect that what is red and what is violet cannot both exist without being similar to each other.
381. I may say that someone's possessions are worth less than a million or that a given number is less than five, but we have no intuitive notion of such guantities. We think them by means of the concept of the numerals representing them, hence by means of a surrogate concept.
382. When I say of a thing that it is valuable, then strictly speaking, I am not ascribing a predicate to it. Rather, I am judging that anyone who loves the thing is justified in loving it (or I am judging that it is impossible to hate it correctly, or I am judging that no one whose interest in the thing is qualified as being correct can fail to love the thing). My statement can be correct even if the thing does not exist; even if one cannot know whether it exists, one can be justified in loving it. Naturally, what is valuable must have certain genuine determinations in virtue of which it can be an object of correct love and which distinguish it from that which is worthy of hate.
383. See paragraph 27 of The First Draft of the Theory of Categories.
384. Just as we have no adequate concepts of the qualities of transcendent bodies or of the internal properties of so-called matter, so we have no adequate concepts of what it is in the soul that underlies what we call natural endowments, skills, and individual character. Exponents of the so-called *verstehende* psychology which aims at understanding rather than explanation apparently fail to understand this matter of transcendence. Some even go so far as to claim that a person's character can be intuited. Compare note 355 above and O. Kraus, "Geisteswissenschaft und Psychologie," in his *Wege und Abwege der Philosophie* (Prague: I.G. Calve'sche Universitats Buchhandlung, 1934).
385. A mental disposition is not itself a passive affection – after all, it survives the process that produced it; yet it comes into being thanks to a process of transformation; and this process of transformation, unlike the mental disposition, is not an inherent property but a passive affection. The passive affection lasts as long as the force producing it continues to operate. But a disposition once produced remains inherent until some force begins to transform it.
386. See paragraph 5 of the appendix to this volume.
387. And one could add: of the parts of such an act which occur together or which occur in succession, the one could always fall away without altering the other.
388. Those inner preceptions which are secondary accidents and which can fall away are naturally instances of primary, not secondary, consciousness.
389. In such a case, those who claim that they perceive feelings of pressure as being caused

would be right: so, too, would those who believe that the same is true of hearing, seeing, and all other sense perceptions. It would be a mistake, however, to imagine that we also apprehend the nature of that cause. Descartes already ventured too far when he characterized sense perceptions as *ideae adventitiae* for "from without" would be a further specification of the efficient causal principle. Compare also Locke's doctrine that matter is apprehended as that which offers resistance.

390. Accidents as such are relative. Whenever we think an accident, we must also think *in obliguo* – if only in a very general way – the subject it contains. This is why the theory of categories is a part of the general theory of relations.
391. Compare *Aristotle and His World-View*, pp. 55 ff.
392. Brentano does not deny that an abstract predication can be faithfully rendered as a concrete one. "Redness is not shape" means exactly the same as, "A red thing *qua* red thing is not a thing that is shaped but a thing that is colored." Brentano notes that a certain accompanying idea which is merely implied by the original form of the statement is lost when the statement is reworded. By the "accompanying idea" he understands a part inherent in the concrete thing. On the distinction between meaning and verbal form, see Anton Marty, *Gesammelte Schriften*, vol. I/1 pp. 67 ff. and vol. II/2 p. 68, also *Untersuchungen*, pp. 134 ff.
393. When the subject is a concrete term, an abstract term is generally not used as predicate. When the predicate is an abstract term, the copula function is performed by "has" or "is." "That which is hot *has* heat" sounds more natural than "That which is hot *is* heat." Similarly, we say that a compound *has* its parts, but not that it *is* its parts. "The hot thing is hot" and "The hot thing has heat" mean the same thing, but the second reflects an inner linguistic form [*einer inhere Sprachforme*] that the first does not. But of course, one would be in error if one took the second statement literally and assumed that the hot thing had a real part which is heat.
394. "Red is a color" is more concise than "A red thing is as a red thing a colored thing."
395. This essay is an except from a dictated text begun on 29 March 1916. It contains forty five paragraphs; paragraphs 7-17 also appear in *Vom sinnlichen und noetischen Bewusstsein*, pp. 112 ff. under the heading "*Von der inneren Wahrnehmung im engeren und weiteren Sinne.*"
396. Compare the following passage from a letter to Kraus (dated 29 September 1909):

> In fact Aristotle himself conceived of sensible intuition as a sort of abstraction when he said that it apprehends form without matter. If you consider that, according to him, individuality is imparted by substance, and if you compare his examples of common sensibles, you will find that the principle of individuation appears not to be contained in the content of sensation.

397. On this point Brentano was to correct himself later in the same year that he wrote this. According to his subsequent view, even outer perception does not present its objects as individuated; if it did they would contain absolutely specific determinations of place, whereas in fact they contain only relative ones. We distinguish between two similar qualities – for example, one red from another – not by their absolute places but by their distance from each other or by the differences in their distances or directions from a third quality. The corrected doctrine appears in *Psychology from an Empirical Standpoint;* see the two dictated texts reproduced in the appendix to that volume, entitled "Thinking is Universal; Entities are Individual" and "Intuitive and Abstract Presentation," the latter dictated a week before Brentano's death. Compare also *Vom sinnlichen und noetischen Bewusstsein*, pp. 123 ff. The insight, that two

qualities of the same genus cannot occupy the same place, is not based on the idea of absolute place species, as Brentano seems to assume here. Compare the present work, part one, essay III, section B.

398. That is to say, when such a transformation occurs, one cannot say that the general concept which both things share is a persisting *part* that is common to both. When a thing that is red is transformed into a thing that is blue, there is no real part termed "color" which remains unchanged. But, as we shall see later, if the transformation occurred wholly within a single place, then this place *qua* substance – and hence the individuality of the thing – would remain unchanged.
399. Here the substance-accident relation is subsumed under the (extended) concept of a whole and its part. In conjunction with what is said in paragraph 5, this yields the correct sense of accidental predication: the accident is not the substance itself, but something that contains the substance.
400. This would be the case if our brain were not a mere *organ* of thinking but were the *subject* of thinking. Then it would undergo a substantial change every time it moved from one place to another.
401. Compare notes 291 and 391.
402. Brentano himself held this view at an earlier time. Compare part Two, essay II, section D.
403. If we had the ideas of absolute places, then we could also intuit empty space. But even this intuition would be a passive affection, and not *a priori* in the Kantian sense.
404. More accurately: we arrive at the general concept of that which is accidental – i.e., of that which contains something else as its substance. Compare note 187.
405. According to paragraph 7, the relation between substance and accident is a special case of that between subject and modal whole [*Modal befassenden*], as is also the relation between a primary and a secondary accident (for example, thinking of something, and affirming or accepting it).
406. Anyone who could form the idea of absolute places *in specie* would have individuated ideas. But if he were to think of these places as colored in general, without thinking of specific colors, then his idea would have a universal character. This is what Brentano has in mind when he says that the individually determind place presents itself as the real part of a modal whole, which as a whole is thought of only in universal terms. "Universal" here is not intended to draw a contrast with the case where the individually determined place is thought of as unqualified; it is meant to contrast with the case where the place is thought of as having a specific quality.
407. Here Brentano still assumes that we intuit absolute species of place. After giving up this assumption, he had to acknowledge that outer perception, like inner perception, is not individuated. How, then, do we nevertheless come to realize that place must be an ultimate subject? A cue is supplied by the following sentence: "Even that which is spatial *in general* has this property." In other words, we need not go beyond the concept of absolute place in general to see that it can be actualized only in absolute specific differentiae, and that these must yield individuation.
408. To grasp the problem that Brentano is dealing with here, we must go back to his earlier discussion of the question of how we form the general concept of substance (part Two, essay II, section D.). There the answer was very different: namely, that which we perceive within ourselves presents itself, not merely as substance, but as a *mental* [*geistige*] substance distinguished from any corporeal substance. Brentano held that, by comparing the mental substance with the corporeal substance, which is presented to us in outer perception, we can form the most general concept of

substance at a higher level of abstraction. But this solution proved untenable after Brentano came to see that we apprehend the thinking thing we are, neither as spatial nor as unspatial, but only as something which we have as an object in a less determinate way. Hence the question whether we are spatial or unspatial must remain open, and so the view is neutral with respect to the dispute between the spiritualists and the materialists. As a result, it can no longer be assumed that the general concept of substance is formed by comparing the intuition of corporeal substance with the intuition of mental substance, and this is why Brentano here proposes a new solution.

I must confess, however, that this solution seems to me unsatisfactory. Paragraph 8 concludes as follows: "If we compare the concept of this substance thought in such general terms with the concept of place in general, we find that place presents itself as a species of substance, and so we recognize that we are in fact dealing with the most general concept of entity or substance." This may be enough to show that the concept of substance, once we have formed it, is more general than the concept of place, but it remains unclear how, according to Brentano, we have formed the concept of substance. What he says on this point is the following: the object of inner perception contains a real part which is individually the same in the simultaneously perceived thing that sees, thing that hears, thing that desires, and so on, and which manifests itself as subject of all these and as something that can itself have no subject.

But can this part really be an object of our intuition? After all, we have just been told that we apprehend ourselves as a thinking substance *without* individuation. Brentano might argue that this difficulty is surmountable, that it has its analogue in the domain of outer perception which, after all, also lacks individual determination. If, in the case of outer perception, we can form the general concept of place despite the fact that we do not apprehend the absolute species of place, why can we not, in the case of inner perception, also form the general concept of substance?

Unfortunately the analogy breaks down precisely where it is most essential. For even though we do not intuitively apprehend absolute species of place, we do apprehend various relative spatial differences when we perceive qualities having various relations of size, distance, and direction. These differences provide us with a sufficient basis for abstracting the concept of place, but inner perception does not have the counterpart of such substantial differences. Therefore, even if an indeterminate substance is contained as object in our intuition, this would still fail to account for how we form the *concept* of substance.

Brentano might have tried to deal with this objection by citing his analysis of the structure of our intuition of space (*Psychology from an Empirical Standpoint,* pp. 311 ff.). He says: "So far as location is concerned, visual intuition presents us with that which is colored, not *in recto,* but *in obliquo.* What we think of *in recto,* in the case of spatial relation, is only an unqualified place, from which that which is colored is intuited as being distant in a certain degree and in a given direction." This *modo recto* idea of an unqualified place, he goes on to say, is universal, and so is itself the concept of place in general, and therefore prior to any abstraction. The same would be true of the general concept of substance.

In my opinion, one must distinguish this universal idea of place, which is an integral component of the sensible intuition, from what is usually called the general concept of that which is spatial. The possession of the former idea would not be a true *apperception* of the spatial as such. The latter, I believe, would still require an abstraction; it could not be arrived at if we did not intuit in *modo obliquo* the relative spatial differences referred to above. And apart from all this, I wonder whether inner

perception can have substance as an object, if we take "substance" in Brentano's sense. According to him, this supposed object of inner perception presents itself as "a thing which itself has no further subject." But such a *negativum,* after all, cannot be *intuited.* The awareness that a thing is so constituted that it cannot possibly contain another subject is a negative apodictic judgment and one that is analytic. It can be evident only if its terms have some positive content – as, for example, it is evident to us that that which is spatial, in contrast to that which is qualitative, cannot contain something else as subject.

Moreover, the relation of the general concept of substance to that which is spatial is very different from the relation of the general concept of that which is spatial to that of a place *in specie.* It is true that in the passage quoted above Brentano says that place presents itself as a *species* of the general concept of substance. But if this were really so, then there could be no unqualified places – for an unqualified place would no longer fall under the generic concept of substance. It would not be an ultimate subject, and, indeed, it would not be a subject at all.

It seems to ne, then, that hardly any other solution is conceivable than the one I suggested in note 185 – namely, that we have no general concept of substance, and that the term substance is not a genuine name but is a synsematikon.

409. In this connection consider the importance of odor and temperature for the taste of wine.
410. Such so-called "parts" taken in isolation would not be possible, for there cannot be any universal things.
411. To put the point without making use of fictions: when a person conceives something as a red and warm thing, he need not thereby conceive it in such a way that his idea can correspond to only one thing. This would be the case only if the absolute place of that thing were specified.
412. Here Brentano definitively abandons his earlier view according to which individuation is effected by a combination of universal determinations.
413. This is not to say that when one thinks an accidental determination, the general concept of substance must be apprehended explicitly. The point is only that one can form this concept by referring to examples. And Brentano is not saying here that the concept of *that which is spatial* is a genus to which the concept of *that which is red* belongs; he is saying, rather, that it is a genus to which the concept of *the subject of that which is red* belongs. I should prefer to express this as follows: It is true that one can have the idea of one who is thinking without explicitly thinking the concept of accident; but when one explicitly conceives one who is thinking *as* an accident, then one is conceiving him as a thing that contains something else as its subject, where that something else remains wholly undetermined.
414. Brentano is here speaking of an effect which *outlasts* the action of the external cause, just as the psychical disposition produced by a perception outlasts the physiological stimulus. The act of sensation itself does not outlast the stimulus and therefore it is to be called a passive affection, not a property.
415. This is, however, questioned above (paragraph 27 of the Second Draft of the Theory of Categories). If the conjecture were correct, the sources, cited earlier, from which the concept of effect could be derived would be far more numerous.
416. It should be noted that acceleration requires continuous causation. Motion is as such a passive affection, including the uniform motion that accords with the law of inertia. It continues as a result of a dispostion which is transcendent to us; this disposition, according to Brentano, is an example of an inherency [*Inhärenz*]. This matter surely

needs further investigation.

417. What Brentano here says is not contradicted by the fact that inherencies, too, can be produced by transformation: the point is that the transformation itself, which is a passive affection, must not be confused with its result which may outlast it. Accordingly, a change of color would have to be regarded as a passive affection, the resulting color as an inherency.

418. From this we may infer that according to Brentano the concept of absolute place, i.e., the concept of space, is univocal, whereas the concept of that which occupies a place is not. The qualities of the different senses are supposed to fill their places in different ways. But Brentano's view must not be confused with that of those psychologists who maintain that the sense in which we may speak of places filled by colors is only *analogous* to that in which we may speak of places filled by sounds.

419. Two things – for example, a color and a sound – which differ with respect to the ultimate genus may both fall under the same higher genus, i.e., that of quality. Two colors are of the same ultimate genus. (In other words, the concept color is intermediate between the concepts red and quality but no generic concept is intermediate between red and color.)

420. This concludes the discussion, begun in part Three, essay I, section E, of the criterion of categorial unity.

421. Here Brentano seems to have Anaxagoras in mind, thus implicitly recognizing him as forerunner of this own theory of mixed qualities.

422. This follows from the general principle – tentatively under consideration as a criterion of categorial unity – according to which no subject can have two predicates of the same category at the same time (see part Three, essay I, section E).

423. In other words, according to Brentano, no *a priori* law of positive contrariety can account for the fact that a blind judgment and its contradictory (or an insightful judgment and its contradictory) are psychologically incompatible. Nor is the fact that there cannot be contrary insightful judgments an instance of genuine opposition; one must add the fact that they are not possible together, even if they are divided among different persons. One cannot hope to reduce this to the law of contradiction, for it turns out that this *is* the law of contradiction itself, although this fact is often overlooked. This law is frequently stated in the form: "Nothing can be and not be at the same time," which seems to have nothing to do with judgments or with evidence. But when one asks what is meant by the words "be and not be," it turns out that their function is synsemantic, and that they do not name anything. On the other hand, I do name something when I say, "A person who is apprehending something as being" [*ein etwas als seiend Erkennender*], which comes to the same thing as "A person who is affirming something with evidence" [*ein etwas evident Anerkennender*]. Similarly, "A person who is apprehending something as not being" is a name which comes to the same thing as, "A person who is rejecting something with evidence." A person who makes an evident judgment can also recognize that no one can make an evident judgment contradicting his own. This is the insight which yields the law of contradiction – when it is generalized to say that contradictory judgments cannot both be evident.

424. This observation should be contrasted with what Brentano says in paragraph 10 of The Second Draft of the Theory of Categories.

425. Brentano is here referring to his contention that certain incompatibilities which are often held to be self-evident are merely factual. On the other hand, if a combination of two determinations were ruled out *a priori*, then from the perception of one of

these determinations one could deduce with certainty that the other does not hold.

426. Here the term "to notice" [*Bemerken*] is used in the same sense as the term "to perceive" [*Wahrnehmen*], whereas elsewhere it has the sense that is here expressed by "to notice explicitly." The point is that nothing can be noticed that is not perceived. What is not an object of secondary consciousness cannot be apprehended explicitly. Therefore a person can never notice (explicitly perceive) the generic – let alone the specific – substantial differences of his states of consciousness, for they are never objects of secondary consciousness.

427. Brentano believes that there can be a limit of noticeability only for parts of sensitive consciousness but not for parts of noetic consciousness. This is not to say that, in order to ascertain that a passive mental affection is not present to us, we must have the insight that there is no unconscious consciousness. What is primary here is the assertoric, negative directly evident judgment that denies the presence in us of certain passive mental affections. That we have such negative apprehensions of matters of fact is a fact of direct awareness. Then subsequent reflection leads us to infer that we could not have such factual insights if an unconscious consciousness were possible. For then it would be possible, for example, that while having the evident insight "I am not doing sums," I had in fact begun to do sums unconsciously: in which case, my judgment could be both evident and false.

The interpretation I have suggested (and perhaps developed) complements Brentano's discussion of positive internal perception in *Vom sinnlichen und noetischen Bewusstsein* (pp. 4 ff. and 12 ff.) where he shows that directly evident perceptions are possible only if the person perceiving is identical *in subjecto* with that which he has perceived. But Brentano does not regard this insight as a necessary condition of evident internal perception. In paragraph 17, Brentano says that a negative insight of this sort is based on a comparison: one thinks of oneself as having the corresponding positive determination and one denies this determination of oneself. An additional distinction must be made here. When I am aware, for example, that while seeing something and hearing something, I am not making an elaborate calculation, I ascertain that I do not calculate *qua* one who is seeing, or *qua* one who is hearing. But this is not enough to yield the fact that I am not now calculating. After all, I do not hear *qua* one who is seeing, or see *qua* one who is hearing, and I *can* see and hear at the same time. The point is, something else is involved here, namely, the negative assertoric awareness that I am not now calculating, and this awareness cannot be reduced to any other. In other words, the class of directly evident assertoric judgments includes denials and indeed, negative predications.

428. So far as noetic consciousness is concerned, everything is in principle capable of being noticed, provided it is perceived at all and is not something trancendent, such as our own substantial differences. But what is contained in perception can become an explicit object of consciousness provided only certain conditions are fulfilled. The fulfillment of these conditions is what we call attention [*Aufmerksamkeit*].

429. The hypothesis of unconscious states of consciousness is based on the assumption that all acts of thought preserve themselves. Instead of referring to mere dispositions, this hypothesis says that the thinking activity itself continues, even during dreamless sleep, but that we have no secondary consciousness of this activity.

430. But we may notice without making this noticing an object of comparative and classifying reflection, as the descriptive psychologist does.

431. The word "infinitesimal" is not a name; it functions synsemantically. Therefore the proposition "There is an infinitesimal" does not express the affirmation or

acceptance of a thing designated by the noun. The proposition is connected with the affirmation of a boundary – or, better, of a continuum which is bounded and which is not determinately conceived with respect to size. The proposition is also connected with several apodictic rejections. In particular, the following assertion is rejected as absurd – namely that, among all the thinkable magnitudes of that which is bounded, only *one* is indispensable to the existence of the boundary. A complex thought is briefly expressed when one says that the boundary belongs to an infinitesimal – a far more elaborate form of expression would be required if the thought were to be analyzed in detail.

432. That is to say, the coming into being of an act of thinking does not involve the destruction of another thing.
433. In which case we would be dealing with a simple coming into being, not with a transformation. Once we consider that our sensible intuitions have as objects, not absolute places, but only differences of distance and direction, then it will become even more apparent that we are incapable of intuiting transformations.
434. It is only when we take "that out of which" in the sense of material cause that we may say that the effect is simultaneous with that out of which it is produced: we may not say this when "that out of which" refers to the thing from which the effect has been transformed.
435. When the final cause is thus made two-fold, then the fiction becomes harmless. But it is self-contradictory to suppose that there could be a final cause without an intelligent cause which acts upon things. We find this contradiction in those contemporary teleological doctrines which acknowledge no God, but yet hold that there is an entelechy immanent in things. The so-called vitalists seem to be unawere of the contradiction involved in divorcing teleology from theism.
436. Thus the cause could be what it is and yet exist without the effect if other necessary conditions of causation were not present.
437. Compare *Versuch über die Erkenntnis,* pp. 25, 30, and 34.
438. From a dictation entitled "Zur Lorenz-Einstein Frage."
439. Two kinds of deception are to be distinguished here: (1) We are deceived when we accept or affirm the object of sensible intuition and make the blind judgment that everything is actually as it appears to be. (2) The other type of deception concerns the *causes* rather than the *objects* of our sensations: we are deceived when we think these causes resemble the objects in all respects. We *are* justified in assuming that these causes are bodies at rest or in motion and that they fall under the general concept of that which is qualitative, but we are not justified in assuming that the specific motions of these bodies are copied by the intuited qualities.
440. More accurately: neighboring parts of space would be successively modified by accidents of the same species. This accords with the doctrine defended here – namely, that what is sensibly qualitative is accidental and that the space continuum it fills is its subject and is thus a substance.
441. That is, the primary space continuum. But, as I pointed out earlier, the term substance is ambiguous. If we say that qualified places are substances, this means that quality contains place as ultimate subject. If we say that parts of actual space that are not filled with quality are substances, this could mean that qualities containing such parts as ultimate subjects are not impossible. Or it could mean simply that places are not accidental.
442. As Brentano explains in another passage of the same text, he is here concerned with

"... the controversial question of whether the ether is carried along by the bodies moving through it or remains at rest. A series of experiments proved it to be stationary. Moreover it had been taught by classical mechanics that the motions of bodies within a closed system must lead to entirely similar relative consequences whether that system's centre of gravity be at rest or in uniform motion along a straight line. But it was held that when the *ether* is involved, then the results in the two cases must be very different. Hence the astonishment was considerable when the Michelson experiment and others related to it showed that in certain cases the expected deviation did not occur at all. The inescapable consequence seemed to be nothing less than a complete revolution of the most fundamental principles of classical mechanics despite their outstanding successes. It was held that this revolution could be brought about in the following way: one would set up a new law of relativity, according to which the processes of a system in motion would run their course just as do those in a system having a centre of gravity at rest. The simple principles of classical mechanics would have to be completely transformed in order to bring about this consequence – however painful it may be to give up such a simple system.

443. According to some theorists "finite space" is a contradiction in terms: for, it is assumed, such a space would be bounded and at the same time there would be nothing to bound it. They fail to take into account the differences of plerosis. The outermost boundaries of finite space, in contradistinction from those surfaces which are inner boundaries, are not boundaries in every direction; in other words, their plerosis is incomplete.
444. Brentano here raises the question: Why should a finite system be in a specific initial state of motion rather than in a state of motion corresponding to one of the conceivable mirror images of this system? Since two such systems differ in no significant way, the question seems unanswerable; but, as Brentano observes, it is unanswerable only under the assumption that space is infinite. This assumption involves two absurdities – that of the infinite *in actu*, and that of absolute chance. It is true that a finite space with absolutely uniform boundaries, like those of a sphere, would be absolutely contingent; but if we assume that the boundaries of the homogeneous substance are not uniform, then a cause of its initial state of motion is conceivable. For the relevance of determinism to these questions, see *Vom Dasein Gottes,* p. 453 ff. and 459 ff.

INDEX TO BRENTANO'S TEXT

abstracta 17, 19, 22-3, 91, 169-170 (see also: universals; formal part; formal cause)
abstraction 23, 131, 153
accidents 29-30, 47, 82-6, 95-6, 164-6, 171-3, 179-181, 193, 194, 209-11
action 93, 103, 143-44, 157
addition 16, 42
aggregates (see: collectives)
analogy 134-5
Anaxagoras 107
Aquinas 112
Aristotle 16, 20, 26, 29-31, 35, 39, 47, 58-66, 82-104, 109, 112, 122-3, 151, 159-60, 176, 183, 188, 197-8
Augustine 125
attribution 42 (see: coattribution)
axioms 15, 71

being 17-29, 45-6, 92, 98, 152-3, 159, 186, 190
  intentional 17-18, 22, 24, 45, 153, 206
  phenomenal 93, 109, 127n, 205
  potential 19, 29-31
  true, being in the sense of 18, 21, 29, 152 (see: *entia rationis*)
Berkeley 188
bodies 115-6, 117
Bolzano 32
boundaries 20, 55-6, 128-9, 157-8, 200-2

Cantor 46
categories 81-100, 149-208
causa deficiens 137, 208
causation 49-50, 125, 135-146, 202-205
  efficient 135-146, 203-214
  final 139-206
  formal 139, 202, 204
  material 139, 203, 204
change 28, 53, 58-62, 187-9, 204-208
coattribution 42
collectives 20, 30-1, 45-6, 54-7, 162, 190, 201
comparative relations (see: relations)
compound thinking 41-44, 128
conceptualism 26
confused awareness 41, 43-4
contents of judgment 21, 22, 25-6
continua 54-7, 120-121, 128-9, 175, 200-1
contradiction 196
copula 163-4, 167-9
copulation 42
corporeal world 208-11
correctness 18

denominationes extrinsicae 25-6, 94-5, 103, 154-55, 156-9, 171, 174
Descartes 103-5, 118
determinism 212
dispositions 194
distinct awareness 116-7, 121

ego 120
elasticity 70-2
Eleatics 54
emotions 96, 130, 137-8
entia rationis 25, 26, 51, 123-4, 127 (see: fictions)
ether 208-11
evidence 96, 115, 17 20, 119

fictions 17-18, 21, 25
forms 17, 25, 52, 205 (see: cause, formal; part, formal)

general terms (see: abstraction; universals)
God 95, 105, 114, 142, 145-6, 178, 184, 207
ground of knowing 206-207

Habitus 93, 134
haecceity 112
Hegel 110
Herbart 194
heterostoichetic series 28-9, 36-7, 98-9, 101
homostoichetic series 36, 102, 106, 112, 119, 178
Hofler 36
Hume 108, 136

incomplete entelechy 58-62
identification 41

identity of indiscernibles 77, 154, 177
impenetrability 70-2, 188
individuation 26-7, 35-7, 83-4, 112, 176-7, 191, 194-5, 207
inherent properties 114, 148, 156, 157, 172
intensity 58-77
intentional being (see: being, intentional)

judgments
  affirmative 113, 153
  apodictic 18, 19, 25, 138
  assertoric 113
  compound 21
  double 31-2
  evident 113-9, 132, 138
  infinite 181
  negative 19, 22, 28, 44, 113, 161
  temporal 18-9, 22, 28, 92

Kant 74-7, 81, 89, 107, 111, 137, 181, 204-5
Kelvin 209

laws of nature 206
Leibniz 16, 17, 54, 104, 107, 123, 125, 127
light, theory of 210-11
Locke 104-5, 136, 205
logical parts 49, 108, 181-2, 184

magnitude 64, 70, 76, 133
Marty 161
mass 70-2
materia prima 35, 114
matter 209-11
meaning 149-53
Meinong 32, 64, 65-6, 62, 63-4
Mendelssohn 74-5
mental substance 120-1
Michelson 210
Mill 107-8, 137, 177, 194
mind (see: mental substance)
modal judgment (see: judgment, apodictic)
modes 104, 105, 106
modes of judgment (see: *modus obliquo* and *recto*; temporal modes)
modifying predicates 167, 169
modus obliquo and *recto* 44, 94-5, 103, 125, 171, 173-4
monostoichetic series (see: homostoichetic series)
motion 28, 58-62, 85, 92, 129
multiple qualities 67-9, 72, 75

names 185-8 (see: abstracta)
necessity 15-6 (see: judgment, apodictic)
negativa 19, 22, 131, 135 (see: judgment, negative)
negative apprehension 198
nominalism 26, 108
noticing 198
now, the 21

one-sided detachability 47, 111-15, 191-2, 201

Pascal 149-50
parts and wholes 16, 54-7 (see: logical parts; one-sided detachability)
passive affections 92-3, 95, 155-9, 172-182, 194-98, 204-5
perception
  distinct and confused 41, 116-7, 121, 198
  inner 119-20, 130, 183, 209
  outer 107, 119-20, 197-8
Petronievics 72
phenomenal being (see: being, phenomenal)
physical phenomena 95-7
Plato 34, 47, 81, 90
pleiostoichetic series (see: heterostoichetic series)
plerosis 61, 70, 128-9, 157
Plotinus 81, 90, 104
points 20, 157-8 (see: boundaries)
positivism 108
possibility 127 (see: judgment, apodictic)
potentiality (see: being, potential)
predication 153-5, 169-87
primary consciousness 198
probability 130
properties 195-96
proprium 28
proteraesthesis 184, 198
psychology, descriptive 208

quality 28, 35 (see: multiple qualities)

realism 26, 187 (see: William of Champeaux)
Reid 136
relations 50, 103, 125-146, 170-5, 199-201
  causal 126, 200
  comparative 126-7, 170, 199-201
  intentional 24, 126, 184, 199, 200
  temporal 142, 199
relative determinations 43, 93-4, 103, 171, 173, 179, 199-207

sameness 134-5 (see: relations, comparative)
Scotus 112
secondary consciousness 57, 120-1, 173, 198
self 116-24
self-awareness 116-24 (see: secondary consciousness)
self-preservation 139-42
Sigwart 137
soul 115, 116, 119
space 18, 29, 92, 175-6, 188 (see: topoids)
species specialissima 28-9, 197-8
Spinoza 105
Suarez 104
substance 20, 37, 87-9, 92-122, 178-9, 190-2, 202, 208-11
substantial change 27, 53, 84, 97, 117-8, 129
substantial determinations 92, 98-100, 102, 110, 175-7
substantial form 53
summum genus 28, 29
surrogate concepts 44, 106, 107, 180, 208

teleiosis 63n, 70, 128-9
temporal determinations 92, 132-3, 144, 175-8
temporal modes 18, 22, 30-1, 93, 126
Theophrastus 146, 208
time 19, 92, 140-46, 155-6, 176-8 (see: temporal determinations; temporal modes; relations, temporal)
thinking (see: compound thinking; *modus obliquo* and *recto*; primary consciousness; secondary consciousness)
topoids 119, 145
transformations 139, 143, 171, 195-7
Trendelenburg 90
truth 51, 127n (see: being in the sense of the true

unity 46-7, 101
  of the concept of being 24
  of consciousness 165-6
  of definition 97
universals 24-9, 34, 38, 52

willing 119, 121-2, 134
Windelband 31
wisdom 15-6, 149-50
Wundt 109-10

Zeno 58
Zollner's lines 132

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BOOKS